

# THE CULTIVATOR:

A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

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## THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

NOTICES TO CORRESPONDENTS, &c.

We have received, during the last month, besides those published in this paper, communications from the following:—John Wiers, J. Harland, J. Judson, Willets Keese, John Kirk Colonus, J. Lawrence, A. J. N. Smith, Levi Durand, J. C. Smith, C. A. Savory, J. Horsfield, A. Subscriber of Chester county, S. H., A. Young Farmer, L. A. Morrell, L. Numan, George Randall, A. W. L. M. of Jamaica, J. J. Thomas, Alexander Becket, P. L. Smith, J. Edmands, H. Knowlton, P. Easley, Scotus, A. Brigham.

To enable us to dispose of the large number of communications now on hand, we propose to devote most of our next number to the contributions of our friends.

### ACKNOWLEDGMENTS.

We are indebted to GEO. C. THORNBURN, Esq. for *The British Farmer's Magazine* for October, and for a copy of *The Farmer's Almanac*, (London,) for 1842, for which Mr. T. will please accept our thanks.

To G. V. SACKETT, Esq. Seneca Falls, for the Proceedings of the Seneca Co. Ag. Society for 1841, embracing the Constitution, By-Laws, the Addresses of Messrs. Sackett and Dunlap, &c. To H. L. ELLSWORTH, Esq. Com. Patent office, for his *Annals: Report to Congress*.

To A. J. DOWNING, Esq. for Catalogues of his *Botanic Garden and Nursery*, Newburgh.

To WM. R. PRINCE, Esq. for Catalogues of the *Linnæan Botanic Garden and Nursery*, Flushing.

To JAMES GRANT, Esq. Iowa, for a copy of his Report as Chairman of the Committee on Agriculture, in the House of Representatives of that territory, in which he recommends the passage of a law for the promotion of Agriculture, similar to the law of this state.

To DR. A. BRIGHAM, Superintendent, for the 17th Annual Report of the Directors of the Retreat for the Insane at Hartford, Connecticut.

To R. ALEXANDER, Esq. Hall Farm, Sherbrooke, L. C., for late copies of the *Edinburgh Observer and Edinburgh Advertiser*.

### SILK—NEW PUBLICATION.

We are gratified to learn that G. B. SMITH, Esq., of Baltimore, is preparing for publication a new work on the production of silk in the United States. It will embrace all the information necessary for a thorough knowledge of the business, from the selection and culture of the mulberry to the preparation of the silk for market. A plain practical work of this kind is very much wanted by the multitude of farmers throughout our country who are entering upon the silk culture as an auxiliary branch of their domestic economy, as well as by those who are engaging in it largely as a separate and independent business. From Mr. Smith's long experience in the business, and the opportunities he possesses for obtaining information on the subject, both at home and abroad, he is eminently qualified for the preparation of such a manual as will meet the wants of the public; and we trust that in its publication he will reap a rich reward for his long continued and persevering efforts to introduce the silk culture into the United States, which must ere long become one of the most valuable of our products.

THE AMERICAN MAGAZINE AND REPOSITORY OF USEFUL LITERATURE.—We have the first and second numbers of the second volume of this work, which is published in this city, 33 pages octavo, monthly, at \$1.50 a year, by B. WOOD. It is edited by Dr. J. S. & B. WOOD, and numbers among its contributors some of our best writers.

BOON'S LICK FARMER.—We have received No. 3 of this paper, which is published monthly at Boonsville, Missouri, at \$1 a year, by C. W. Todd, and edited by five gentlemen, located in different parts of that state.

HON. JAMES M. GARNETT, of Virginia, President of the Agricultural Society of the United States, has accepted an invitation to deliver the annual Address before the New Castle (Del.) Agricultural Society, at their next Fair.

### WORK FOR THE MONTH.

Order, system, is of as much importance to the farmer as to other individuals, and a well arranged plan of operations is essential to continued success. "A place for every thing, and every thing in its place," is a first truth in a farmer's metaphysics; a truth that proves itself, and of which the simple enunciation is sufficient. The farmer then should have his farm divided according to system; his crops should follow each other in regular order; the influence of these governing principles should be felt in every department of his business; it should be seen in the feeding and management of his animals, in his fences and gates, and in his houses and barns. The farmer should have his book containing an accurate map and measurement of his farm, and each field, and in this every alteration should be made and recorded. There are thousands who live and farm at hap-hazard; and so there are merchants and manufacturers who conduct their business in the same way, and usually with the same results: that is with the loss of time, labor and capital. "Order is heaven's first law," and he who transgresses, whatever may be his employment, must take the consequences.

Liebig's beautiful explanation of the manner in which plaster performs its effects in promoting the growth of plants, has given an increased impulse to the use of this invaluable article, and we hope every farmer will try some of it on his clover, grain, corn, potatoes, &c., this year. On sandy soils, its value will be more apparent than on any others, and though little used on the potatoe crop, we have heard of instances where it has been nearly or quite doubled by its application. There is no manure of this class, which will at all times, and on all soils, produce the expected effects, and occasional failures will never deter the experienced farmer from their further use. On suitable soils, plaster is the most efficacious as well as cheapest manure that can be used.

March is the month for making that most delicious of sweets, maple sugar; and the farmer who, with the means in his possession of providing himself with this necessary article, neglects to do it, and depends on Cuba or Louisiana, so far surrenders his independence. Maple trees will yield from four to six pounds of sugar per tree, when well tended, and in medium seasons. The labor required comes at a time when little else can profitably be done; takes but a few days; and the result is a material contribution to the profits of the farm, and the comfort of the family. The utmost degree of neatness and cleanliness should be observed in every thing relating to the sugar manufacture; no burning of the syrup, or souring of the sap allowed; and this system carried out will give a pure beautiful sugar.

It is well for a farmer to be looking ahead, and securing such seeds as he is intending to plant or sow the coming season. He who has noticed the difference in the crop between plants produced from good ripe, perfect seed, and those from inferior, unripe, or perhaps injured seed, will understand the propriety of attention to this point. It is not too much to say, that thousands of acres of corn fail, almost annually, from using bad seed. Better to pay double price for good seeds, than use poor ones, if they could be had for nothing. To attempt economy in this way, would be to invite certain failure.

It is the custom to sow clover and grass seeds on winter sown grain in March, and if there is a little snow it can be done much better and more evenly than without. Never attempt to scatter such light seeds in a windy day; and if you value good crops, clean fields, and peace of mind hereafter, be careful to sow nothing but pure seed in your field. Weeds will come in rapidly enough without our sowing them; and the man who sows Canada thistle, Charlock, Steinkrout, Johnswort, &c. with his seeds, needs instructing anew in the golden rule.

March is a trying month for domestic animals, if treated during our long winters as too many of them are. There is a degree of cruelty in thus half-starving so many creatures, that deserves the severest reprehension; and even a regard to profit should induce a different course. Just compare the profits of a cow well kept through the winter, coming out sleek and smooth in the spring, with one reduced to a skeleton, barely making a live of it, and requiring good pasture till July, to get her in order again. So with sheep, swine, and horses. No man has a right, nor should he attempt to keep more animals than he can keep well, and the proportioning of his stock to his keeping is one of the things that distinguish the good farmer from the poor one.

Fences must be looked to this month, as animals are apt, unless cared for, to be strolling about the fields, and will do much mischief on newly seeded grass lands, and nearly destroy such wheatfields as they can obtain access

to. Drains should be examined, sluices cleared, stagnant water let off, and the sown crops examined, to prevent injury from such sources. In all places where frequent passing and repassing is to be done, substitute gates for bars, and you will have access to your fields greatly facilitated.

Trees may be transplanted this month, and if every farmer would see the roads to the extent of his farm were planted with trees, it would require but a few years to change the whole aspect of our country for the better. The maple, elm, ash, and in suitable soils the locust might be profitably used, and if these were not to be had, fruit trees, such as the pear, cherry, or apple, might be substituted. In transplanting make your holes large, but not deep, give the roots space to spread, use rich soil in filling up, and do not cover much higher than the earth naturally was around the tree. If the top is heavy, it should be secured against winds. There are multitudes of families in New England that make all the sugar they need, from maple trees planted within forty years; and such plantations are annually increasing. It has been ascertained at the south, that the attacks of some of the insects so fatal to fruit trees, particularly the peach, may be prevented by planting a small red cedar in the same hole with the fruit tree; the odor of the cedar being offensive to them. Wormwood has also been tried in the same way, and it is probable any strong scented plant would produce a similar result.

Have you made all the necessary preparations for the coming season? Are your agricultural implements in good order, your plows, hoes, sythes, rakes, harnesses, carts, &c. ready for use? Farmers find it most unpleasant, when a piece of work is to be done, to be obliged to go to a neighbor for the necessary implement, and it is not unfrequently the case that the time spent in borrowing and returning a tool, would purchase a new one, or if applied in season, repaired the old one. Don't rely too much on borrowing; the practice is a bad one. Be neighborly, but if you exhibit your good will in some other method than a dependence on your neighbor for the means of carrying on your farm work, you will probably be quite as much respected.

If you have neglected cutting elms, it may be attended to now; but later than March is inadmissible, unless the grafting is performed as early as possible in the spring, and before the buds start. It is truly surprising that the production of fine fruit occupies so little of the attention of farmers. Most of them have orchards, but in a large proportion of them the fruit is good for nothing; even hogs will reject a large portion of it. Apples it is found have become the cheapest article extant for making pork, as if the hogs are allowed, they will keep themselves, and apples are one of the very few kinds of food that is not materially improved by cooking before feeding.

At this time your ewes will require daily some cut turneps or potatoes with a little salt. It will also be an excellent plan to allow them once a day, a few oats in the sheaf, instead of their hay; and all your sheep will be the better for such a course. Roots fed daily will prevent in most cases that costiveness which in sheep fed on dry hay alone, is apt to produce the stretches. If you have not oats a handful of corn daily to each sheep, will prove valuable. Many of the things we have noticed may appear trifling; but it should never be forgotten by the farmer, that the most of his profits arises from trifles, or such as appear such in themselves; and it will be found on examination that those who have obtained a competence by agriculture, are precisely those who have paid the strictest attention to these things.

When your wood is split and seasoned, let it be packed dry, in your wood-house, and if you manage well you will have a year's supply on hand, that the burning of green wood may be avoided. Don't believe the story that green wood is the best, or most profitable; or if you think best, make an experiment with a given quantity of green and dry wood, and see which will keep the temperature of your room highest for the longest period. This is easily done, and will be decisive.

SILLIMAN'S JOURNAL.—Our friend at Jamesville, who inquires the price and postage of this journal, is informed that by sending \$6 free of postage to Prof. B. Silliman, New-Haven, Ct. it will be sent him one year, and the postage on the numbers be paid by the publishers.

HATCH'S SOWING MACHINE.—In answer to the inquiries of J. Tilghman, Esq., we would state that the price of this machine, a figure and description of which was given in our last volume, page 197, is \$40.

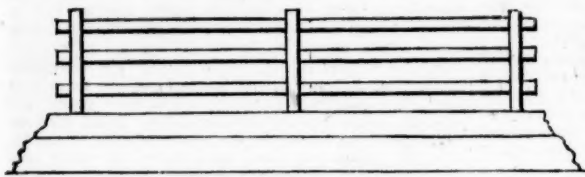
Manufacturers of Sub Soil Plows and Hay Presses may find a sale for their articles by advertising them in the Cultivator.

## FENCING LANDS IN THE WEST.

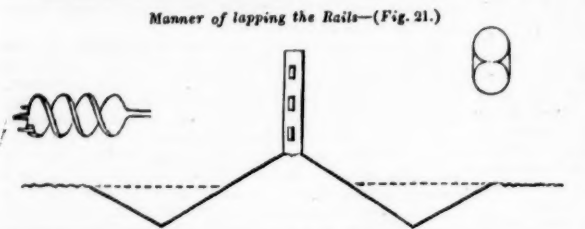
THERE are few things of more interest to a large portion of our country, particularly the western states, than the best and cheapest method of making a fence. We are of the opinion, that in a very considerable part of the prairie districts of the Mississippi valley, live fences, or fences constructed of some of our native plants, and which are adapted for hedges, and are not liable to the failures attending the fences of imported plants, will eventually be found the cheapest and best. But other fences are at present indispensable; and we are pleased to perceive that the attention of some of our ablest western farmers has been directed to this subject with great success. In a late number, we noticed the Appendix of Mr. Ellsworth, and proposed at some future day to give a sketch of his improvements in fencing as adapted to the prairie lands, or indeed to any lands where the soil is free from obstructions to the plow and scraper. From Mr. Ellsworth's letter, and from other sources, we shall now give some notices that may be useful to the farmer.

In all new countries, where wood is abundant, the first fences are what is called the Virginia, or worm fence, usually seven or eight rails high with stakes, and a rider to give the necessary firmness. Fence so made will require about the same as ten rails to a length, and nearly two lengths, or twenty rails, to a rod. Such a fence not only consumes a vast deal of timber in its construction, but by being necessarily crooked, and commonly staked, the ground occupied by it is much greater than that of any other fence.

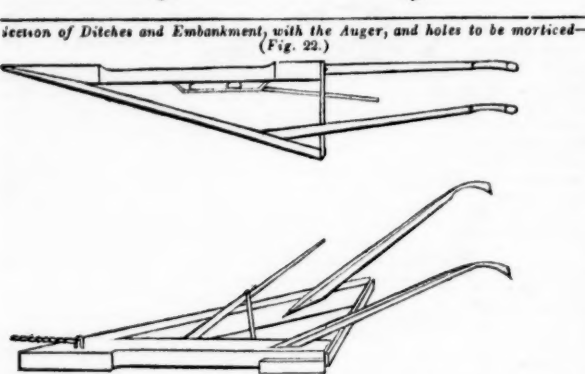
In making some experiments to ascertain the cheapest and best methods of fencing lands, Mr. Ellsworth, from the effects of embanking abroad, was induced to combine the embankment with the post and rail fence; and where the soil is suitable for the action of his scraper, or timber is so scarce as to render the economical use of it desirable, his experiments would seem to show that so far as cheapness and efficiency is concerned, the embankment fence is all that can be desired.



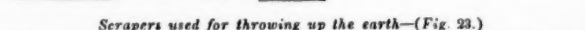
Section of the Fence—(Fig. 20.)



Manner of lapping the Rails—(Fig. 21.)



Section of Ditches and Embankment, with the Auger, and holes to be morticed—(Fig. 22.)



Scrapers used for throwing up the earth—(Fig. 23.)

The scraper (fig. 23) is made as follows: "Two planks placed at an angle of 18 to 20 degrees, and twelve feet long, will answer the purpose. One plank must run straight in the furrow made by the plow; the other to be wider, say 12 to 16 inches, placed at the above angle; a brace in the rear gives strength and firmness, and two handles are attached to guide and press the scraper." Mr. E. gives these directions for laying out the fence. "Measure off 8 feet 3 inches; plow the two parallel furrows at this distance, throwing both furrows on the measured space; plow two furrows on each side, and then take the scraper, and thus proceed: first plow and scrape until the embankment is completed, which will be in six rounds, that is, six passages on each side; on a section line, a span of horses would easily make one mile of ditch per day; the angle of the ditch may be about 40 degrees; the angle should be such as the other side of the bank will readily turn over."

We may remark here, that as a team of horses in plowing an acre with a 9 inch furrow travels about 11 miles, the labor assigned to his horses by Mr. Ellsworth does not seem to be overrated, as they will have only 12 miles to travel, unless indeed the draught of the scraper should be much more severe than that of the plow. By making the ditches 18 inches deep, the earth thrown in by the scraper is raised 18 inches above the natural level, making the height of the embankment alone 3 feet. The angle of elevation is so small that the bank will not slide by frost or rains, and will soon be covered with turf—blue grass being recommended at the West for this purpose. The next thing is to make the post and rail fence that is to crown the embankment.

"The posts are bored with despatch by one or more augers propelled by hand or horse power. The augers are two and a half inches, and these, by two borings together make a mortice of five inches by two and a half. The rails may be sharpened by hand, but best with a circular saw, cutting one side, so that when two rails are brought together

they just fit the mortice. The lap of the rails is about six inches, and additional strength is given by pinning the upper rail. If rails are cut 12 feet 3 inches, 440 lengths will make a mile of fence. This will determine the number of posts, which are inserted in the embankment 18 inches, (reaching the original sod,) by driving down a pile the size of the post, thus dispensing with digging. Several piles may be prepared to suit different sized posts."

The above engravings show a section of the fence as completed; the manner of lapping the rails; the auger used for boring, and the two holes to be morticed; a cross section showing the ditches and embankment; and the scrapers used for throwing up the earth.

In an interesting letter to Mr. Ellsworth from S. Robinson, Esq., the latter makes these remarks on this kind of fence. "Many attempts have been made to fence with earth, and nearly all fail. Cause: the sods are piled up like laying stone wall, and in two or three years the whole fence is a pile of the softest fine manure. Others have tried to pile up earth, and sod it over with the native sods. But these rarely succeed; the grass dies, and the bank being too steep, slips down in spring, and there being no rails on top, the cattle soon form a path over. But if some cheap plan of making a bank two or three feet high from the bottom of a ditch on each side, with a gradual slope, which would soon grass over with blue grass sown upon it, can be adopted, in which bank, posts with two or three rails, just like the old fashioned yankee post and rail wall fence—it will be complete." The fences that have been already made on the plan indicated above, seem to show that it will be what Mr. R. suggests—"complete."

Mr. Ellsworth gives the following, as the cost per mile of such fence in the West.

2 teams, \$2.50 each, 1 day, (one with plow and one with scraper,)	\$5 00
1,320 rails sharpened and delivered, at Mr. R.'s estimate, 2 cents,	26 40
440 posts bored, complete, 3 cents,	13 60
Setting posts and putting in rails, 5 days,	5 00
	\$50 00

It is evident that the cost per acre of fencing land, will materially depend on the shape and size of the tract, as the following table will show.

640 acres, 4 miles of fence, \$300, or per acre, 32 cts.	
320 " 3 " " 150, " 46 1/2	
160 " 2 " " 100, " 62 1/2	
80 " 1 1/2 " " 75, " 93 1/2	
40 " 1 " " 50, " 125	

We find in the "Union Agriculturist" the following notice of a substantial embankment and ditch, which, should it succeed, may dispense with the post and rail. Such a mound would be a capital place to commence a hedge; and if made of some hardy American plant, such as the honey locust, buckthorn, wild mulberry, or perhaps some of our thorns, would soon make a most impervious fence.

Jason Marsh, Esq., of Rockford, informs us he has been enclosing his land by an embankment 8 1/2 feet in diameter at the base, and 2 at the top, and about 4 feet high. On either side is a ditch 2 1/2 feet across. He has made a mile and three quarters of this kind of fencing at an expense of sixty-nine cents per rod. This we should suppose large enough to be permanent, and resist drouth. It could be turfed over by sowing grass seed upon it, (the Kentucky blue grass, or the orchard grass, would probably be the best;) and then, on the top, a hedge row could be planted that would be out of the reach of cattle. How beautiful would our prairies be, divided by such fences."

Although the Atlantic states are as a whole much better provided with fencing materials, both wood and stone, than the West, still there are large districts where farmers and land owners will ere long, if they do not already, experience serious inconvenience in making good fences. There are thousands of farms in all parts of the country that have been so denuded of their original timber, while none has grown to supply its place, that there is not upon them timber sufficient for rails to enclose them. The old worn fences are rapidly decaying. Twenty years may be stated as the duration of a fence made from any of the common kinds of timber used; and still, very few farmers have asked themselves where the materials for their next fences are to come from, or taken any measures to remedy the approaching evil. Those who have stone on their farms need have no apprehensions; those who have not, should by embankments, by hedging, or by nurseries of forest trees, endeavor to secure the requisite material for the preservation of their crops.

Few are aware of the cost of fencing a farm, after the fences have once been allowed to go to decay. Mr. Shurtleff of Massachusetts, an enterprising farmer, gives from his own experience the cost of several of the most common kinds of fence in the eastern states.

White cedar or cypress fence, made of posts and rails, five rails in height, three lengths to two rods nearly, cost 91 cents per rod.

White pine rails sawed two inches by eight, and chestnut posts, four rails high, three lengths to two rods nearly, cost 64 cents to a rod. In both these instances, the cost was exclusive of the setting.

Good four and a half feet stone wall varied from \$1 to \$2.50 the rod, according to the ease with which the stone could be procured, and the manner in which it was laid—whether by trenching or otherwise.

Hedge fence made of the Virginia thorn, set 21 to a rod, cost at the end of the fourth year, including planting, trimming, &c. 40 cents to the rod.

Mr. Shurtleff found his white cedar posts to rot off at the ground in about 15 years; and this agrees very well with our experience with this kind of timber. Farmers err much in making their posts to set in the earth so small as is usually done. We have a cedar bar-post now standing, and promising to remain so for several years to come, that was cut and set 40 years since. The post was from a green tree, and some 16 inches in diameter; and our experience has uniformly been, that durability was much depending on size. The method of setting posts recommended by Mr. Ellsworth, that is by merely driving them, is certainly much the quickest and easiest; but a board fence, the posts of which are so set, we have found would not stand as well as when the holes were dug to the requisite depth, and the post secured by either filling in with stone firmly packed, or earth driven solid and close by a heavy square headed piece of timber. The frosts of the north are more destructive to the post and rail or board fences than anything else; and the securing the posts against its action, one of the most necessary, yet difficult, of fence making operations. In the West this evil is not so great; but still it is not to be overlooked; and we presume it will eventually be found that the posts in a prairie fence cannot be too firmly or carefully set. There seems to be no limit to the growing of cattle, and the consequent accumulation of wealth in the West, if some mode of converting the open woodland or prairie to pasture, and providing the materials of suitable enclosures can be found. The Appendix of Mr. Ellsworth, with the accompanying letters of Mr. Robinson and Mr. Stevenson, (the last of which originally appeared in the Cultivator) would seem to prove that these difficulties have been greatly overrated, and may be easily overcome by energy and perseverance.

## "A. OF THE NORTH."

SOME of our friends have requested us to apply the new test agricultural thermometer, recently invented by "A. of the North," and some of the uses and applications of which have been so well described by the discoverer in a previous number of the Cultivator, to the numerous papers with which that gentleman has enriched so many of the horticultural and agricultural journals of the country. We should have done so before the present time, had we not thought the new instrument too short for the purpose indicated, and had we not remembered the fate of poor Richmann at St. Petersburg, while experimenting with a fluid to which that of the new thermometer, when highly excited, bears no inconsiderable resemblance. Science is, however, progressive, and the agricultural thermometer may yet be so improved as to indicate with perfect safety to the experimenter the high value of the papers alluded to, and respecting the excellence of which the public entertain but one opinion.

## APPLES FOR STOCK.

UNDER this head, a "Practical Farmer," in the Boston Cultivator, says—"Last year I butchered a hog sixteen months old which weighed 500 lbs. For some weeks before bringing him to the tub, he ate nothing but boiled apples." Corn meal cooked was offered him, but refused; the pork was of the best quality, and though the moon was not consulted in killing him, the "Meat ne'er shrunk a bit i' the pot."

## BOSTON MARKET.

THE YANKEE FARMER estimates the amount of produce, annually sold at the Faneuil Hall market, at \$8,000,000, viz:

"Pork, .....	\$3,750,000	Fish, ..	\$300,000
Beef, .....	1,750,000	Poultry, ..	270,000
Butter, .....	600,000	Cheese, ..	250,000
Vegetables and fruit, ..	500,000	Eggs, ..	117,000
Mutton, .....	300,000	Veal, ..	63,000"

Cannot some of our New-York and Philadelphia friends furnish for the public the provision statistics of those cities?



## New-York State Agricultural Society.

## PROCEEDINGS OF THE EXECUTIVE COMMITTEE.

THE Executive Committee of the New-York State Agricultural Society for 1842, held their first meeting on the call of the President, at the office of the Cultivator, Albany, on the 16th of February. Present—JAMES WADSWORTH, Esq., president of the society, and Messrs. WALSH, VAIL, GROVE, L'AMOREUX, PRENTICE, MCINTYRE and TUCKER, members of the Committee. There were also present several other gentlemen, who materially aided the Committee by their counsels; among whom were J. B. NOTT, Esq., ex-president of the society, C. N. BEMENT, Esq., Gen. LELAND of the Assembly, and others.

Letters were read from vice-presidents JEREMIAH JOHNSON of Brooklyn, J. M. SHERWOOD, Auburn, ORVILLE HUNGERFORD, Watertown, and GEO. J. PUMPELLY of Owego, expressing their regrets at their inability to attend, and their warmest wishes for the successful prosecution of the objects of the society.

Letters were also read from WM. B. LUDLOW, Esq., of Hudson, JESSE IVES, Esq., member of Assembly from Cortland, and from "N. N. D." of Stockport; all containing valuable suggestions, which were duly considered by the Committee.

The Report of the Transactions of the Society for the last year, embracing the Reports of the Executive Committee, Corresponding Secretary, and Treasurer, were read and approved, and ordered to be transmitted to the Secretary of State, as required by the "Act to promote Agriculture."

The Premium List for the year 1842 was made out, revised, and ordered to be published.

A Finance Committee was appointed for the year, consisting of the PRESIDENT, TREASURER, and E. A. LE ROY, GEO. VAIL, and J. M. SHERWOOD, Esqs.

The thanks of the committee were voted to H. S. RANDALL, Esq., corresponding secretary, for the faithful manner in which he had performed his duties the past year; and he was requested to continue his correspondence in behalf of the society during the present year.

On motion of A. WALSH, Esq., the following preamble and resolutions were passed:

Whereas the Geological Survey of the state of New-York is in the course of publication, and is deemed of great value to its agricultural interests; therefore

Resolved, That Mr. Vail, Mr. Nott, and Mr. Bement, be a committee to solicit from the state authorities a copy of the same for each county agricultural society in the state.

Resolved, That we recommend to every county in the state, which has not already formed a county agricultural society, to immediately request the county clerk, whose duty it is by law, to give the requisite notice for such organization, that they may be entitled to the bounty of the state, bestowed upon conditions, for the improvement of their agriculture.

Resolved, That the Executive Committee of the State Agricultural Society respectfully recommend to all county agricultural associations to offer premiums for the best, second and third best cultivated farms, having especial reference to profit and economy in the management of the same.

On motion of Mr. TUCKER,  
Resolved, That the Executive Committee will hereafter hold regular monthly meetings on the second WEDNESDAY of each month at the office of the Cultivator, Albany, at 11 o'clock A. M.

## CATTLE SHOW AND FAIR

Of the New-York State Agricultural Society, to be held at Albany, Sept. 28 and 29, 1842.

## LIST OF PREMIUMS FOR 1842.

## ON CATTLE.

- I. BULLS—Of any breed, 3 years old and over  
For the best, ..... \$30 For the third best, ..... \$5  
For the second best, ..... 12 For the fourth best, Diploma.
- II. BULLS—Of any breed, over 2 and under 3 years old.  
For the best, ..... \$20 For the third best, ..... \$5  
For the second best, ..... 12 For the fourth best, Diploma.
- III. BULLS—Of any breed, over 1 and under 2 years old.  
For the best, ..... \$12 For the third best, ..... \$5  
For the second best, ..... 8 For the fourth best, Diploma.
- IV. BULL CALVES—Of any breed.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.
- V. COWS—Of any breed, 3 years old and upwards.  
For the best, ..... \$30 For the third best, ..... \$5  
For the second best, ..... 12 For the fourth best, Diploma.
- VI. HEIFERS—Of any breed over 2 and under 3 years old.  
For the best, ..... \$12 For the third best, ..... \$5  
For the second best, ..... 8 For the fourth best, Diploma.
- VII. HEIFERS—Of any breed, over 1 and under 2 years old.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.
- VIII. HEIFER CALVES—Of any breed.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.
- IX. COWS—Cross between the native and improved breeds.  
For the best, ..... \$12 For the third best, ..... \$5  
For the second best, ..... 9 For the fourth best, Diploma.
- X. HEIFERS—Cross between the native and improved breeds, between 2 and 3 years old.  
For the best, ..... \$10 For the third best, ..... \$5  
For the second best, ..... 8 For the fourth best, Diploma.
- XI. HEIFERS—Cross between native and improved breeds, over 1 and under 2 years old.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.

- XII. COWS—Native breeds.  
For the best, ..... \$10 For the third best, ..... \$5  
For the second best, ..... 8 For the fourth best, Diploma.

- XIII. HEIFERS—Native breeds, between 2 and 3 years old.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.

- XIV. HEIFERS—Native breeds, between 1 and 2 years old.  
For the best, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.

The greatest combination of those points or properties which indicate milking qualities and an aptitude to take on flesh on the more valuable parts, together with general beauty of form, (size in itself not being considered a criterion of excellence,) will be the considerations which will govern the viewing committee in awarding premiums in the above classes.

- XV. DAIRY COWS—Of any breed.  
For the best dairy cow, from which shall have been produced, in thirty successive days, the greatest quantity of butter—quality as well as quantity considered—which shall be exhibited at the time, ..... \$15 For the second best, ..... \$10  
For the third best, \$5.

No premium will be awarded unless an accurate statement of the manner of feeding the cow, management of the milk, and method of making the butter, the time it was made, the breed of the cow if known, the time after calving; the cow as well as the butter to be exhibited at the time, with certificates from the person or persons who milked and managed the cream, and churned the butter.

- WORKING OXEN—Over 4 years old.  
For the best pair, ..... \$30 For the third best, ..... \$5  
For the second best, ..... 12 For the fourth best, Diploma.

- STEERS—3 years old.  
For the best pair, ..... \$15 For the third best, ..... \$5  
For the second best, ..... 10 For the fourth best, Diploma.

In awarding this premium, particular reference will be had to the close matching, excellent training, and docility of the animals, as well as their general good appearance.

- FAT CATTLE.  
For the best fat ox, cow or steer, ..... \$30  
For the second best, ..... \$12 For the third best, ..... \$5

- FAT SHEEP.  
For the best wether, ..... \$10 For the second best, ..... \$5  
For the third best, Diploma.

Applicants for the premiums on fat cattle and sheep must furnish a statement of the manner of feeding the animal, the kind, quantity and cost of food, to entitle them to the premiums.

- TO BREEDERS.  
To the breeder of the best Bull, class I, ..... \$10  
To the breeder of the best Cow, class V, ..... 10  
To the breeder of the best Heifer in class VI, ..... 10

- ON HORSES—Over 4 years old.  
For the best Stallion, ..... \$30 Best breeding Mare & Colt, ..... \$20  
For the second best, ..... 12 For the second best, ..... 12  
For the third best, ..... 8 For the third best, ..... 8  
For the fourth best, Diploma. For the fourth best, Diploma.

- For the best pair of matched Horses, \$10.  
For the second best, ..... \$10 For the third best, ..... \$5  
Three years old Stud and Mare.  
For the best Stud, ..... \$10 For the best Mare, ..... \$10  
For the second best, ..... 8 For the second best, ..... 8  
For the third best, Diploma. For the third best, Diploma.

A variety of horses possessing size, strength, and endurance for field labor, combined with that action which qualifies for the carriage or saddle—in short, the horse of all work, is probably the most profitable class which our farmers can now engage in rearing, and to such, therefore, will the preference of the Society be given.

- SWINE—Over 10 months old.  
For the best Boar, ..... \$10 For the best breeding Sow, ..... \$10  
For the second best, ..... 8 For the second best, ..... 8  
For the third best, ..... 5 For the third best, ..... 5  
For the fourth best, Diploma. For the fourth best, Diploma.

In awarding premiums on hogs, reference will not be had exclusively to size or to present condition, but to that form and that proportion of bone and offal to more valuable parts, which promises the greatest value from the least amount of feed.

- SHEEP—I. LONG WOOLLED.  
For the best Buck, ..... \$10 For the best pen of 3 Ewes, ..... \$10  
For the second best, ..... 8 For the second best, ..... 8  
For the third best, ..... 5 For the third best, ..... 5  
For the fourth best, Diploma. For the fourth best, Diploma.

- II. MIDDLE WOOLLED.  
For the best Buck, ..... \$10 For the best pen of 3 Ewes, ..... \$10  
For the second best, ..... 8 For the second best, ..... 8  
For the third best, ..... 5 For the third best, ..... 5  
For the fourth best, Diploma. For the fourth best, Diploma.

- III. FINE WOOLLED.  
For the best Buck, ..... \$10 For the best pen of 3 Ewes, ..... \$10  
For the second best, ..... 8 For the second best, ..... 8  
For the third best, ..... 5 For the third best, ..... 5  
For the fourth best, Diploma. For the fourth best, Diploma.

The term "long woolled" is designed to include the Leicesters, Lincolns, Cotswolds, and all the English varieties of sheep which furnish the quality of wool suitable for combing—the "middle woolled," the South Down, Norfolk, Dorset, Cheviot, native, &c.—the "fine woolled," the Spanish and Saxon varieties of the Merino and some of their crosses.

- FARM IMPLEMENTS.  
For the best Plow, ..... \$30 Best Threshing Machine, ..... \$20  
For the second best, ..... 20 For the second best, ..... 10  
For the third best, ..... 10 For the third best, ..... 5  
For the fourth best, Diploma. For the fourth best, Diploma.
- For the best Horse Rake, ..... 5  
For the second best, ..... 5 For the third best, ..... 5  
For the third best, Diploma. For the best Fanning Mill, ..... 5  
For the best Cultivator, ..... 5 For the second best, ..... 5  
For the second best, ..... 5 For the third best, ..... 5  
For the third best, Diploma. For the best Straw Cutter, ..... 5  
For the best Drill Barrow, ..... 5 For the second best, ..... 5  
For the second best, ..... 5 For the third best, ..... 5  
For the third best, Diploma. Best improved Ox Yoke, ..... 5  
For the second best, Diploma.

## ON SILK.

- Best half bushel Cocoons, ..... \$15 For the third best, ..... \$5  
For the second best, ..... 10 For the fourth best, Diploma  
For the third best, ..... 8 Best specimen Man'd Silk, ..... 10  
For the fourth best, Diploma. For the second best, ..... 5  
Best pound of Reeled Silk, ..... 15 For the third best, ..... 5  
For the second best, ..... 10 For the fourth best, Diploma.

## SILK REEL.

- For the best, ..... \$10 For the second best, Diploma.

## BUTTER AND CHEESE.

- For the best sample of } For the best sample of }  
Butter, not less than } Cheese, not less than }  
50 pounds, ..... \$20 } 100 pounds, ..... \$20  
For the second best, ..... 12 For the second best, ..... 12  
For the third best, ..... 8 For the third best, ..... 8  
For the fourth best, ..... 5 For the fourth best, ..... 5  
For the fifth best, Diploma. For the fifth best, Diploma.

The butter offered for premiums may be presented in butter tubs, jars or firkins.

The claimant for premiums on butter, must state in writing the time when it was made; the number of cows kept on his farm; his mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed; the best time for churning and keeping butter in hot weather; and the best mode of preserving it in and through the summer and winter, and in what vessels.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese is made from one, two or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used and the mode of preparing it; the mode of pressure and the treatment of the cheese afterwards.

## FIELD CROPS.

- Best crop of Wheat, not } Best crop of Indian Corn, }  
less than one acre, ..... \$15 } not less than one acre, ..... \$15  
For the second best, ..... 10 For the second best, ..... 10  
For the third best, ..... 8 For the third best, ..... 8  
For the fourth best, Diploma. For the fourth best, Diploma.
- For the best crop of Barley, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Rye, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Oats, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Potatoes for the table, not less than one acre, ..... \$10.  
For the second best, ..... 5 For the third best, Diploma.  
For the best crop of Potatoes, quantity considered, not less than one acre, ..... \$10.  
For the second best, ..... 5 For the third best, Diploma.  
For the best crop of Beans, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Ruta Baga, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Carrots, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.  
For the best crop of Peas, not less than one acre, ..... \$10.  
For the second best, ..... 8 For the third best, Diploma.

Those who present claims to premiums for farm crops must state in writing the following particulars:—the condition of the soil at the commencement of cultivation for the crop; the previous cultivation, product and manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning, and harvesting the crop; the amount of the crop determined by actual measurement; and the expense of cultivation. The land shall be measured by some sworn surveyor, and the claimant of the premium, with two other persons who assisted in measuring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor.

## MAPLE SUGAR—50 lbs.

- For the best specimen, ..... \$15 For the third best, ..... \$5  
For the second best, ..... 10 For the fourth best, Diploma.

Applicants for the premiums on maple sugar will be required to furnish a statement of the manner of making and clarifying the sugar.

## DISCRETIONARY PREMIUMS

will be awarded for such implements and products, not enumerated above, as shall be deemed worthy of notice and encouragement.

## HORTICULTURAL PRODUCTS, &amp;c

The list of premiums on horticultural and household products will be published next month.

## PREMIUMS FOR ESSAYS.

- I. For the best popular treatise on Agricultural Chemistry, ..... \$100  
II. For the best essay on the Rotation of Crops, best suited to the soils of this state, ..... 20  
III. For the best essay on the General Management of the Farm, ..... 20  
IV. For the best essay on the Introduction of New Agricultural Products, ..... 20  
V. For the best essay on the Management and Application of Manures, ..... 20

## TO ARTISTS.

- I. To the painter of the best specimens of Original Portraits of Domestic Animals—A Gold Medal.  
II. To the engraver of the best specimens of Portraits of Domestic Animals on wood—A Gold Medal.

## PUBLIC SALE OF STOCK.

On Friday, Sept. 30, there will be a public sale of stock; gentlemen wishing to dispose of their stock are requested to enter them with the Recording Secretary previous to the 15th Sept., that catalogues may be prepared in season.

## RULES AND REGULATIONS.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on



Dairy Cows, Fat Cattle and Fat Sheep, Butter and Cheese, Field Crops, Maple Sugar, and to the following regulations.

All persons who intend to exhibit cattle, horses, sheep or swine, should give notice to LUTHER TUCKER, Recording Secretary, Albany, previous to the 15th September, in order that the necessary accommodations may be made for them; and all animals must be on the ground by 9 o'clock of the 28th.

All persons intending to compete for the premiums on plows must send their plows to the Recording Secretary, Albany, previous to the 1st of August next, that the committee may have opportunity to test them thoroughly, and at such times and places as they may think best, and be prepared to report at the Fair.

All other agricultural implements must be sent as above, on or before the 26th of September, that the committee may have an opportunity to test them the day before the exhibition.

The statements required from those who compete for field crops, must be sent to the Recording Secretary, Albany, previous to the 1st of January, 1842, and the premiums will be awarded at the annual meeting of the society, on the third Wednesday of January.

It is very desirable that all those who intend to compete for the premiums on butter and cheese, maple sugar, cocoons, silk, &c., should have their specimens in Albany early on the morning of Sept. 27, that they may be deposited in their appropriate places, and the rooms suitably arranged on the day previous to the Fair.

All premiums will be paid in cash or plate at the option of the winners.

The premiums for essays, to artists, and for agricultural implements, will be open to the United States; but all others will be confined to residents of this state, who are members of the society, or who may become so by the payment of one dollar on entering their articles.

Competitors for the premiums on essays must forward their manuscripts to the Recording Secretary, Albany, previous to the first of Jan. 1843, free of postage.

#### PREMIUMS

Offered by the Albany County Agricultural Society for 1842.

The Board of Managers, with a hope of awakening the attention of the farmers of the county of Albany to a sense of the importance of good cultivation, and at the same time of exciting an honorable competition for exhibiting the best cultivated farms, have decided to appropriate ninety-five dollars of the funds of the society the present season, for

#### PREMIUMS ON FARMS.

For the best cultivated Farm of not less than one hundred acres of cleared land—regard being had to the quantity of produce, the general appearance, improvements and skill in husbandry, condition of stock, &c., and the expense of cultivation, \$30  
For the second best, not less than one hundred acres, 20  
For the third best, not less than one hundred acres, 10  
For the best Farm, not less than thirty acres cleared land, 20  
For the second best, not less than thirty acres cleared land, 10  
For the third best, not less than thirty acres cleared land, 5

Remarks.—All claims for the above premiums must be made and addressed to L. TUCKER, Esq., Secretary of the Society, and left at the office of the Cultivator, in the Exchange Building, on or before the 15th day of June next. The Committee will commence their duties to examine the farms that may be entered about the first of July and first of September.

The following may be the form of the application:  
Sir—The subscriber living in the town of \_\_\_\_\_, hereby makes known his intention of applying for premium for the best farm, (of not less than 20 or 100 acres as the case may be,) and offers the same for inspection.  
C. D.

The Committee will require of the applicant an accurate description of the farm, statement of the management and produce thereof; the number of acres tilled; the quantity of manure applied to an acre, (loads calculated at 30 bushels); whether long or compost; means and manner of collecting manure; whether spread and plowed in for corn and roots, or put into the hills or drills; average quantity of grass mowed, whether upland or interval; number of acres of corn, potatoes and other roots, whether for the table or for stock; number of acres of wheat, rye, barley, oats and buckwheat; how much per acre; number of acres laid down to grass; quantity of seed sown to the acre; kinds used; number of horses, cattle, sheep, and swine; method of feeding and management—summer and winter; whether native, mixed or foreign breeds; management of calves—whether for the butcher or rearing; quantity of butter and cheese made; number of hands employed, and expense of the same.

The Committee will expect these questions to be answered with as much particularity as possible. The applicant will not be required to make oath, as it is presumed no farmer will so far descend below his calling as to state an untruth for the paltry sum of thirty dollars.

The Committee hope and believe that from the method proposed, many important facts may be elicited, and the farming community enabled to derive much useful information from the skill and experience of practical farmers.

#### PREMIUMS ON FIELD CROPS.

For the best acre of winter Wheat, \$3  
For the second best, 5  
For the best acre of Barley, 5  
For the second best, 3  
For the best acre of Rye, 3  
For the second best, 3  
For the best acre of Oats, 5  
For the second best, 3  
For the best acre of Indian Corn, 10  
For the second best, 7  
For the third best, 5

Remarks.—It is to be understood that the quantity of land specified above, is in each case to be in one piece. And the claimant of either of the above premiums shall, with one other person, make a statement according to the best of their knowledge and belief to the following particulars; and shall obtain a certificate of the measurement of the land by some sworn surveyor.

The particulars are—

1st. The general state of cultivation and quality of manure used, and quantity applied on it the preceding year.

2d. The quantity and quality of manure the present season.

3d. The quantity of seed used.

4th. The time and manner of sowing, weeding and harvesting the crop, and the amount of product ascertained by actual measurement or weight, after the whole produce for which a premium is claimed is harvested, and the entire expense of cultivation.

5th. Of Indian corn, the entire crop of the acre to be offered for premium, is to be measured in the presence of the claimant, who is to sign the statement made by the person or persons who did harvest and measure it; and to be measured between the 15th of Nov. and first day of January. Seventy-five pounds in the ear to be considered a bushel.

For the best acre of Potatoes for the table, \$5  
For the second best, 5  
For the best acre for stock, 5  
For the second best, 5

Remarks.—Some sorts may be of superior excellence for their meanness and rich flavor, but moderate in their product; some, not so well flavored, may be very abundant in produce and highly valuable for feeding stock; some growing compactly, and more expeditiously harvested. The sorts which combine most of these good qualities shall be judged the most valuable, and will be preferably entitled to the premiums, without excluding claims for potatoes of highly superior goodness, although less productive.

For the best half acre of Ruta Bagas, \$5  
For the second best, 5  
For the best quarter acre of Beets, 5  
For the second best, 5  
For the best eighth of an acre of Carrots, 5  
For the second best, 5

Remarks.—It will be required of the claimants of the above premiums to state in writing the condition of the land at the time the course of cultivation for the approaching season may commence, and the several operations in that cultivation, the kind and amount of manure applied, and as near as possible the expense of the whole cultivation and harvesting; and the amount of produce, as well as the measurement of the land, must be attested as in the other crops before mentioned.

For the best quality of Butter and Cheese, not less than 50 pounds, \$10  
For the second best, 5  
For the third best, 5

Remarks.—Claimants for these premiums will be required to furnish the Committee on this subject with a written statement (and the name concealed) of the entire management of their dairy, specifying the number and kind of cows; the manner in which they are fed through the year; the produce in each month distinctly; the manner and time of milking; the butter and cheese, and the method practiced of preserving and taking care of the same. No premium will be awarded, unless the specimens are accompanied with full and satisfactory statements of the management of the dairies in which the same was produced. Ladies, if your husbands are wanting in enterprise, come forward yourselves, and you will find your reward.

N. B. Without a strict compliance with the above conditions, the Committee have determined not to award the premium.

#### MAKING SUGAR.

March is the month in which the making of Maple Sugar, one of the most delicious of sweets, is commenced, although the period of manufacture is at times prolonged into April. New-York produces annually, from ten to fifteen millions of pounds, and the quantity might be greatly increased. The whole made in the United States, (and only those in the north make this sugar,) amounts to thirty or forty millions of pounds annually. In making sugar, much is depending on the season. Some years successive thaws and snows occur, which prolong the flow of the sap, while in others, the rapid approach of warm weather swells the buds, and by rendering the sap unfit for sugar puts a stop at once to the manufacture. Days of a moderate, or rather warm temperature, with frosts at night, and some slight snows, make the best sugar weather. During the latter part of the season, the sap sours readily, turns whitish, and becomes ropy in a short time, and in that state cannot be made into sugar. If converted into molasses, as it sometimes is, the flavor is not as good or the fluid as pure as that made earlier. If boiled as soon as gathered, or if a handful of lime is added to each barrel of sap, the sugar or molasses made towards the close of the season will be much improved in quality.

Every thing connected with the manufacture of maple sugar, should be made ready early in the month. For a long series of years we find that our sugar works have been tapped between the 12th and the 17th of the month of March, with very few exceptions. There is no use in tapping before the sap flows freely; and if neglected beyond the proper time, much of the sugar will be lost. The kettles, pans, or whatever is used for evaporating the sap, the reservoirs or tubs for storing it,

when gathered, the troughs or tubs in which it is to be received from the trees, should receive a thorough cleaning, by being washed in boiling water, and then in strong lime water, before they are required for use. This important preparation is too often neglected, and an impure, unpleasant tasted article is too often the result. It is indispensable that every thing about the sugar camp, from the gathering of the sap to the completion of the manufacture, be conducted with the utmost care and neatness.

During any part of the season, if the sap when gathered, (and it frequently will flow in such quantities as to accumulate on the hands of the maker of sugar,) is obliged to be kept a few days before boiling, lime should be placed in the reservoir, or occasionally sprinkled into it, to thoroughly check any tendency to the formation of acids, and assist the formation of sugar. Sap, when boiled, into which lime has been thrown, will have its impurities more easily separated, and the process of graining will be more satisfactory and complete. On the cleansing of the syrup, previous to its conversion to sugar, much of the purity and consequently the goodness of the article will depend. Our method is, to boil into syrup each day all the sap possible; to strain off the syrup at night into vessels where it remains over the night; in the morning it is carefully turned off from what sediment there is, and placed in the kettle for reduction into sugar; for cleansing the syrup we prefer the white of eggs, although milk will do, when eggs are not to be had; the white of the egg alone to be used, well beat, and carefully stirred into the syrup, after the kettles are over the fire, but before it is warmed. The syrup must then not be disturbed until it begins to boil, when all the impurities will rise to the surface, and may be taken off with a skimmer. The syrup must be heated gradually, or it will be apt to burn. When fully cleansed, the boiling may be pushed until the syrup is ready to be dipped into the pans or molds for sugar. Some sugar makers reduce their syrup to sugar, or so that the mass will grain, and then pour it into barrels or tubs, for graining. When this is fully done, a hole is opened at the bottom of the barrel, from which the syrup not grained, will gradually drain, and the sugar will be left of a beautiful quality and whiteness. When made into cakes, these may also be drained, and will then, in whiteness, resemble the best Muscovado.

#### Notices of New Publications.

##### NORTH AMERICAN REVIEW, FOR JAN'Y, 1842.

This number of the leading literary journal of the United States contains a number of articles of value, and well sustains its high character. Those on the Florida war, that gulf which has swallowed up so much of the life blood and treasure of this country, Chandler's American Criminal Trials, Brougham's Natural Theology, &c., will be read with interest. But to the agriculturist, the most valuable article will be the one on Harris' Entomology of Massachusetts, of which it gives a synopsis or review. We have not had the pleasure of meeting with Dr. Harris' work; but the review has convinced us that it is a work much wanted, and one honorable to his character as a man of science. It is a work prepared in connection with the geological and agricultural survey of Massachusetts, and is worthy a place by the side of Hitchcock's and Colman's Reports. Such publications as this lead us to look with increased anxiety for the reports of the survey of our own state; and we must take the liberty of repeating here that it is to be ardently hoped no unworthy parsimony on the part of the state will prevent these final reports from being got up in a manner that will be the most creditable and useful to the state. The report on Entomology will be of great importance to the farmer; and if the illustrations and descriptions are such as they should be, an invaluable service will be rendered the agriculturist by enabling him to know, and of consequence to guard against his insect enemies.

The necessity of this knowledge will be apparent from a single fact stated by Dr. Harris. In this country the name of weevil is applied to at least six different insects; two of which are moths, two beetles, and two are flies. Now as all these are depredators on the crops of the farmer, but have habits and forms entirely different, he requires to know what is a weevil and what is not, that he may adopt proper measures of security from these pests, as it is evident that what would save his crop or his granary from one of these would have no effect whatever on others. It should always be remembered that the weevil is always a bug; never a moth or fly. Dr. Harris says that the plum weevil, or the one that stings the young plum and causes it to fall prematurely, is also the cause of the black excrecence which disfigures and has destroyed so many of the best plum orchards in the state. The doctor may be right; but from an examination of the grub, we had been inclined to think differently. If this grub is the product of the plum weevil, then the measures resorted to in order to save the fruit from its attacks would be useful in the case of the tree.

The cutworm attracted a large share of Dr. Harris' notice, as it deserved to do, since it is one of our worst depredators in gardens and corn fields. He procured a number, all alike in color, but varying somewhat in size, all called cutworms; and in August, from the crystals formed by these worms, five different kinds of moths made their appearance. That which the doctor believed to come from the cutworm proper is a moth which flies about our candles in great numbers in the latter part of



summer. He calls it *Agrotis devastator*. The bee moth, Dr. H. says, was brought from Europe with the bee—the old straw hive affording an excellent shelter to the grub or worm which feeds on the comb. The grub prefers the old to the new comb; and when it once makes a lodgment, always is most common in the upper part of the hive. Weak swarms suffer more than large ones, as the comb is more easily reached by the grub. The presence of the worm may be known by the particles of comb and black grains scattered over the bottom of the hive. The moths may be destroyed in great numbers when they appear, by setting shallow vessels containing a mixture of honey or sugar with vinegar and water near the hives in the evening. Perhaps too, as is practiced for the destruction of some other insects, a lamp suspended close to the surface of a basin of oil in the evening near the hive, would be the means of trapping multitudes. Dr. H. speaks rather doubtfully, though he inclines to the belief that the European grain moth, *Tinea granella*, is found in this country. We think there can be no doubt on the subject. We received last year an ear of wheat (the California), from the South, and carefully wrapped it in a paper. After a few weeks we opened it, and found several moths resembling the *tinea granella*, and on examination found quite a number of the kernels had been perforated, and in some the larvæ was still existing, and afterwards in the same paper, produced more moths.

The *Aphis* is another destructive family of insects of which Dr. Harris gives an instructive account. There is one of the species very destructive to melons, cucumbers, &c., and frequently escapes detection, from the fact that its ravages are committed below the surface, on the stems and roots. Some have supposed that the downy aphis, *Aphis lanata*, which produces in Europe the disease of apple trees, called the *American blight*, was not known in this country. Judge Buel, however, found it on his apple trees, and Dr. Harris has observed it in a few instances, though they are still rare. The downy or cottony aphis is, in this country, more common on some other trees and shrubs than on the apple. We have seen it on the bittersweet, (*Solanum dulcamara*), in a few instances on the sugar maple, but in the greatest abundance on the black alder of our swamps. In the year 1839, in passing the Tonawanda swamp, between Lockport and Batavia, we observed in several places the clumps of alder loaded with white down which hung in waving masses, and which examination showed belonged to the aphis. Where a branch was touched, a tremulous motion, evidently voluntary on their part, was communicated to the downy matter. Examination with the microscope proved that this downy substance was alive with the young aphis, ready to float with the first wind to new habitations, and new depredations. In 1840 we observed in the air some downy particles floating in a strong south wind, and succeeded in arresting them. As we suspected, they proved to be the nidus of the cottony aphis, the young being easily detected. As we know of no place where they were to be found in that direction nearer than a swamp some three miles distant, their presence floating in the air proves the facility with which their migrations are performed.

Perhaps there is no insect more vexatious to the lover of good fruit than the apple worm. The parent moth places the egg in the hollow at the blossom end of the young fruit, where it hatches in a few days, and the young grub immediately makes for the heart of the apple. In a few weeks it attains considerable size, works numerous galleries in the interior and around the core, opens a hole through the outside of the fruit to get rid of the rubbish it makes, and when the apple falls, which is hastened by the presence of the insect, it escapes to the earth, where it generally remains in the chrysalis state throughout the winter. The apple moth is distinguished by oval spots of brown, edged with copper color, on the hinder margin of each of the fore wings. In Koller's work on injurious insects, page 230, it is figured and described as the *Codling moth*, (*Carpocapsa pomonana*). To diminish this nuisance, let the apples that fall be daily gathered and fed to swine; or where this is practicable, let these animals run in the orchard at the period when the damaged apples are usually dropping. Serious losses occur annually in New-England from this source; and the insect is progressing westward, having within a few years made its appearance injuriously in central and western New-York. As the egg is deposited soon after blossoming, all preventive measures must be applied in season to meet the evil—say in June or July, when it is probable the moth might be attracted and destroyed by lamps or fires in the evening.

Dr. Harris has led us somewhat away from the object we had in view at the commencement of this paper, which was to notice the North American Review; and we return to it in order to say that it is published by James Munroe and Company, Boston. Price \$5 per ann.

#### CEREOGRAPHIC ATLAS OF THE U. STATES.

UNDER this title we have received the first sheet of the Cereographic Atlas, now publishing by the proprietors of that valuable and widely circulated journal, the New-York Observer, one of the editors of which, S. E. Morse, is the inventor of the system of cereographic engraving which promises such important results. This first sheet contains beautiful and very correct maps of nine of the states—Maine, Vermont, New-Hampshire, Connecticut, New-Jersey, Maryland, Delaware, Virginia, Ohio, and the territory of Iowa. This valuable At-

las is furnished gratis to such of the subscribers to that paper as are not in arrears, or shall pay for the paper two years in advance. Whether copies will be printed for sale, we are unable to say; but the introduction of such a map of the United States into every family in the country would be a most important acquisition, and do much to dispel that geographical ignorance of our own country which is unfortunately so prevalent. We hail with pleasure the appearance of this first sheet, as a proof that cereography has surmounted the obstacles attendant on the introduction of a new art, and can assure our readers that the Atlas, alone, will be worth far more than the advance subscription to the Observer.

#### Correspondence, Inquiries, &c.

##### SANDY SOILS.

MESSRS. EDITORS—I am in possession of a farm, a large portion of which is a deep sand, and which has been so completely exhausted, that in some places the surface is nearly a drifting sand. Manure put upon it produces a good effect, but its influence is felt only a short time. It has occurred to me that the best method of improving this soil, would be to change its character, if possible. If you would give your opinion on this matter, and add some remarks on the best method of cultivating sandy soils, you would doubtless confer a favor on many subscribers. L. S. T.

Hartford Co., Ct.

All soils in their essential parts, are composed of sand, clay, lime and organic matter. If either of these substances exist in too great proportions, the soil will not be good or fertile. Kirwan says that a good proportion is 56 of sand, 14 of clay, and 30 of calcareous matter. Morton says the proper proportions of these primitive earths is from 50 to 70 per cent of sand; from 20 to 40 of clay; and from 10 to 20 calcareous matter or lime. We have found by analysis that some of the best wheat lands of west New-York, contained much less lime than the lowest proportion stated above, while the proportion of clay was somewhat greater. A good soil should be friable and porous to permit the roots to penetrate freely; to allow the superfluous waters to readily pass through the subsoil, and at the same time sufficiently tenacious to retain moisture for the support of plants. This capability of retaining moisture is owing to the clay, and this fact indicates what is necessary to be done to change the character of a soil, when such as is described by our correspondent. When sandy soils are deficient in clay, they soon decompose the manure put upon them, which is speedily carried off by filtration and evaporation; the name of *hungry soils*, has hence been given to soils too deeply porous and sandy.

L. S. T. If he had a sufficient supply of manures at command, might render his sands fertile, but if he wished to change their character, and render them permanently fertile, he must increase the quantity of clay. On sandy soils, a load of clay properly incorporated, will produce a greater, because more lasting benefit than a load of manure. Of this, the fine farm formerly owned by Judge Buel is an example. This was originally an *hungry* porous sand. To give it tenacity, and a proper retention of moisture, Judge Buel covered his fields with clay from the Albany clay banks, at the rate of from twenty to thirty loads per acre, and his experience convinced him that a load of such clay (it contained from 20 to 30 per cent of lime,) was of more benefit than a load of barn-yard manure. He distributed his clay as fast as drawn, upon the sward or surface, where it was decomposed by the rains and frosts, when it was pulverized by the roller, and further distributed by the harrow. There are other instances equally illustrative of the good effects of clay in changing the character of such soils; but this was one of the first attempts at improvement in this country, and therefore the more deserving of honorable notice. Fortunately there are very few instances where the clay necessary for the amelioration of such soil cannot be obtained in the immediate vicinity. To dig, distribute, and incorporate the clay with the sand is the cheapest, and the only certain mode of rendering such soils capable of permanent fertility.

Owing to the ease with which water penetrates soils in which sand constitutes too large a proportion, they soon become exhausted of the alkali which is indispensable to the formation of plants, and the growth of sward being impossible, the surface becomes more impoverished and loose. Ashes distributed on such soils furnish the required alkalis, and hence the great advantage of their use, as fully demonstrated on the sands of Long Island and New Jersey, as well as those of Belgium and Holland. Soap boilers' ashes, or the leached ashes of the asheries of the country, are invaluable for this purpose, as they still retain sufficient alkali, while the earths of lime and clay combined add to the necessary constituents of the soil, and partially restore the proper equilibrium of the original elements. Liebig, in his late valuable work on organic chemistry, explains most satisfactorily the action of the alkaline matters so contributed to the soil, and their absolute necessity where fertility is to be expected. The first effort in improving sandy soils should be to change its character, then to cover it with a sward, or a growth of clover; and when this can be effected, the great obstacle to rendering them fertile or capable of cultivation, is overcome.

There is no soil on which gypsum produces so great, or such immediate effect, as on sandy ones; and from its effect on these has originated the impression that gypsum

is a great exhauster of soils. It is evident that where but a given quantity of alkaline matter exists in a soil, the more vigorous the plants we produce on it by the use of substances that afford no alkali, the sooner it will be exhausted of that ingredient, and become incapable of growing plants. Gypsum furnishes no alkali; and as sandy soils, for the reasons stated above, contain but little, that manure by stimulating the rapid growth of vegetation exhausts it rapidly. But other substances used as manures that contain no alkali, produce the same exhausting effects, horn shavings for instance. These facts show the proper course to be pursued in the treatment of sandy soils, or indeed all others where the alkalis are deficient. Manures are to be applied which contain the necessary alkalis, in connection with the gypsum. Ashes, green crops, clover fed off on the ground or turned under, animal manures, or indeed any substance in which alkali abounds will be found useful. Lime is valuable, but on sandy soils which are already too dry, the effect is not as perceptible as on heavier soils, which it assists in rendering more friable, as well as giving fresh supplies of alkali. By changing the character of a sandy soil, and giving it the power of retaining the manures and alkalis furnished it, we speedily convert it into a rich loam, easy to cultivate, and most abundant in its products. There is not, we are convinced, a farm such as our correspondent has indicated, in New England, that may not be "reclaimed" and restored to fertility, and in nine cases out of ten, the materials may be found on the farm where they are wanted. A swamp, a morass, a peat bog, will furnish the clay and the vegetable matter necessary to insure productiveness; it is the business of the farmer to search for, and apply them.

##### STEARIC CANDLES.

MESSRS. EDITORS—I have observed in the New-York papers a notice of a new kind of candles sold under the above name. It is said the oil is expressed from the tallow, and then the substantial part made into candles, which are very hard—not oily—endure a higher temperature than spermaceti candles, and burn as clear as candles made of spermaceti or wax. Can you tell us anything about these candles, their nature, or the preparation of the tallow? A HOUSEKEEPER."

It was first observed we believe by the chemist Chevreul, that the expressed oils of plants, as well as animal oils, are composed of two substances, or oils of different degrees of fusibility; so that on exposing any oil to a low temperature, one part would become solid, while the other portion retained its fluidity. To the least fusible oil he gave the name of *stearine*, and the most fusible he called *oleine*, which has been changed to *oleine*. Several methods have been proposed for separating these two substances, which is at times very desirable. Thus in preparing almond or olive oil for clocks and watches, it is necessary to separate the part which becomes white and hard from the more fluid part; and in France for some years the separation of *stearine* and *oleine* in tallow for candles has been practiced. Alcohol combines with oleine very readily; and when thus separated from the stearine, it is obtained pure by evaporating the alcohol. They may also be separated by pressing the substance between folds of blotting paper till it ceases to render it greasy. The *oleine* which the paper has absorbed is then separated by boiling it in water, on which the oleine floats and the paper sinks. From the *stearine* thus obtained, the candles to which our correspondent alludes are made, and named *stearic* candles. These peculiar qualities of oils, animal and vegetable, have a great influence in the manufacture of soap, which is a combination of *margaric acid* and *oleine*. Of the particular method adopted in the preparation of tallow for the New-York candles, we are ignorant, having seen nothing more than the paragraph alluded to by our correspondent.

##### BONE DUST, ASHES, &c.

OUR friend "ENQUIRER," of New-London, (Ct.) gives so pleasant an account of his experiment with bone dust on corn, and its total failure, that did our limits permit, his paper should go upon our pages entire. Enquirer put twenty loads of long manure on an acre of good sward land in May, turned it under and harrowed well. He then mixed twenty bushels of bone dust with twenty bushels of loam, and when fermented well, put this compost in each hill, dropped his corn upon it, and covered in the usual manner. The experiment was a total failure, and our opinion is asked as to the cause.

Failures with bone dust applied to crops are not uncommon in this country or in Europe; and they have been attributed to various causes—such as the qualities of the soil, the state of the bones previous to grinding, or the method of application. Invaluable as this substance is for some crops, and in most instances where it is used, it at times appears perfectly inert and useless. Thus, at page 341 of Mr. Colman's Report, may be found a paper from Mr. Haggerston, the able and intelligent superintendent of the Cushing farm at Watertown, Mass., in which some experiments with this manure are detailed, and which so far as potatoes and corn were concerned proved a complete failure. Two acres were planted with corn, the whole manured with compost, and on one-half of the field bone dust applied at the rate of 55 bushels to the acre. The yield was not at all improved by the bone dust. Of the potatoes, the rows manured with compost gave 94 bushels to the row—those



without manure, 4 bushels; and the rows with bone dust, 2½ bushels each. In other cases, however, and particularly on root crops, bone manure was excellent. We are inclined to think the bad effect of the bone dust on Enquirer's seed corn is to be attributed to the state of fermentation in the compost; the heat produced being so long continued as seriously to affect the germinating powers of the corn. We have known a precisely similar result ensue from the use of hog and horse manure applied to corn in the hill, or the seed planted on it, while the manure was in a high state of fermentation. The slow germination of his corn, and its after appearance, would indicate unfavorable and unnatural chemical changes during the first process of vegetation.

"Enquirer" asks whether a covered or open drain would be preferable, when it would be dry one-half the year? Open drains we do not think advisable, only in those cases where so much water flows as to prevent the use of covered ones. Covered drains are the best in many respects. They are not in the way of farming operations; and they prevent that constant carrying off of the finer and more valuable parts of soils which is always more or less done by open drains.

As to the best methods of using ashes, we have found them valuable in all the ways we have tried them, but prefer using them on our meadows as a top dressing. If applied to crops, we think the best way is to make them into a compost with lime, gypsum, &c. In this way, they are valuable for any crop. Since attention has been drawn to the subject in Massachusetts, some of the most intelligent farmers and gardeners make one of the most efficient and active of manures, by mixing the muck from swamps in layers with barilla or soap boiler's ashes, and when the fermentation has considerably progressed, mixing the whole mass. In this way, the peat or muck is decomposed, its natural acidity corrected, and applied directly to crops, or to grass lands, is most valuable.

#### THE ROHAN POTATOE.

From the letter of a correspondent at Solebury, (Pa.) we make the following extract. Our experience in the culture of the Rohan corresponds with his own.

"I see that some of your correspondents are crying down the Rohan potatoe, as not fit to eat, nor even fit to feed to stock. One cause of this prejudice against the Rohan is doubtless to be found in the fact, that during the high prices many potatoes were sold for Rohans that were not genuine, and probably some of them of very inferior qualities. Where such was the case, disappointments would ensue, and the cry of humbug naturally be raised. Now I never wish to persuade people into new measures of any kind, further than to give my own experience; and that with the Rohan is as follows:

"I got my seed from Judge Buel of his own raising, which I suppose must have been genuine; and I have planted them now four years, and also the Mercer, which has been the standard hereabouts and in the Philadelphia markets for many years; and in all cases have the Rohans produced nearly double what the Mercers have done, when planted and treated alike. We are also eating of them every day, and though our family is large, we all think them equal if not superior to any other potatoe. I am also inclined to think they are as good for stock as any other potatoe, and of more value to the farmer; for if he can raise only 3 bushels in the place of 2, which he may do in all cases where he plants Rohans and Mercers, the advantage in cultivating the Rohan must be decided. You must judge from this my experience in raising and eating Rohans, whether I am in my common senses or not."

#### PLASTER AND MANURE.

The following extract is from "Observations on Farming," a paper by G. Cook, Esq. of Tivoli, N. Y.

"I have been for some time past a close observer of the effects of plaster on our lands, and make bold to declare my opinion, that I think it a deleterious stimulant in the hands of the ignorant or grub-worm farmer. That plaster is not a direct manure it is presumed none will deny; but that by its inherent properties it excites and stimulates the plant to which it is applied to an increased appropriation of the fertilizing properties of the soil, producing temporarily, (unless in the mean time manure is applied,) an increased production. Accordingly we find that it produces the greatest effect upon new lands, or rather lands upon which it has not been before used. I have conversed with many farmers who have been in the practice of using it for some time past; and all seem agreed that without any other manure, it soon loses its magical effects upon their fields, and that they have found it necessary to resort to other means of keeping their lands in a proper state of fertility.

If such be the case, and from my own observation I judge it to be a correct conclusion, I would advise my brother farmers to expend the money heretofore applied to the purchase of plaster, in additional labor to prepare their barn-yards to retain more perfectly the real enricher of their soils.

But how often do we see those who would be very much offended to be called slovenly farmers, allowing their cattle, sheep, and swine to be upon the road, wasting their manure, making the road their barn-yard, or if they have one, suffering it to drain, where all the drainage is lost to all beneficial farm purposes, and following that wasteful practice of feeding their stock upon the ground, while at the same time advocating both in theory

and in practice, the greater strength of well rotted manure.

Who, that is a real friend to agriculture does not hope to see a better system succeed one so wasteful and ruinous; and when the misinformed or prejudiced farmer shall better appreciate the great saving made by housing his manure, and applying it to his land before its strength is gone by evaporation or washing. Then indeed he will find no necessity for applying plaster to his plants, like ardent spirits to the body to give but temporary strength; but will be able to add yearly to his lands the only true and legitimate manure."

REMARKS.—We must be permitted to enter our protest against any speculations or inferences that shall go to diminish the use of plaster by our farmers. The "grub-worm" or the "skin flint" farmer, the one who takes from his land all he can get, and returns nothing to it, will doubtless find his land exhausted, and the sooner the better, if that shall open his eyes to the folly of such a course of farming. But the skillful husbandman, the one who farms his fields in rotation, who enriches all his fields and exhausts none, finds in plaster one of the most efficient and money-saving aids in his course. Besides it will not be so readily conceded, that plaster is nothing more than a stimulant, that it is no manure, even in the restricted sense of the term. The fact that plaster is found to a considerable amount in those plants on the growth of which it exerts the greatest influence, clover for example, would militate against such a supposition. That it is mainly active in contributing one of the most important elements of plants, nitrogen, has been proved by Liebig; and as much the largest portion of the carbon of plants is derived from the atmosphere, any substance that enables the plant to appropriate this the most readily, must be of service. But experience in such matters is entitled to great weight. We have long lived in the centre of the New-York plaster country. We should not err perhaps in saying that there is more plaster used in the counties of Onondaga and Cayuga, than in any other two counties in the state. Many of us have used it annually for more than thirty years; and never have we heard a farmer who deserved the name of one, assert that his soil was impoverished by its use. On the contrary there are thousands who have grown rich by the rotation of crops which the use of plaster and clover enabled them to pursue, and whose farms at the present moment are in better condition, and as productive as they were when the use of plaster commenced some thirty years since. There are exhausting farmers in all countries; men who will ruin their farms, whether they have plaster or not. We advise no one to rely on plaster alone. Depend upon it the barn-yard and barn-yard manures cannot be too carefully looked to, and here the opinions of our correspondent have our hearty approval. But we say, combine the two; use both plaster and manures; feed your fields well and they will feed you.

#### RAISING CALVES.

A correspondent at Hanover (N. H.) writes:—"Though no dairyman, I have a fact for your correspondent D. C. B., Canaan, N. Y., in relation to calves. About the first of March last my cow had a fine large heifer calf, three-eighths Durham; white and red, and very handsome, and together with the fact that the mother (of common stock,) was a very superior milker, determined me to raise her progeny. The udder was some inflamed and caked, but was reduced by greasing and thorough milking. The afterbirth did not, however, come away in the usual time, and an experienced manager attached a brick to the protruding part about a foot from the root of the tail, which by its gravity accomplished the object in a day or two most completely and without violence. The calf took the teat readily, and had a full supply of milk. In April the cow died, as supposed from some obstruction in the gall duct; at the time giving 12 quarts of milk daily; feed, hay and roots. 'What shall we do with the calf?' was the question now asked; for calves, though they will suck the finger readily, will not always learn to drink. An ingenious young Illinois farmer who was with me took a junk bottle, filled it with warm milk and a little Indian meal, and put it to her mouth. She seized it and exhausted it at an effort. For 5 or 6 weeks, the food was 3 quarts of milk and half a pint of meal morning and evening, and the whole from the bottle. During the day a small quantity of fine hay was within its reach, which was constantly nibbled, and never have I known a calf in better heart, or thrive faster than this. I hope if any of your readers should meet with a similar misfortune, they will make an attempt to bring up the calf 'on the bottle,' as they will find it perfectly easy. H."

#### RUTA BAGA.

A respected correspondent in Peru, makes the following remarks on the culture and preservation of ruta бага. "Some of my neighbors object to raising this root, on the ground of the expense and trouble. I presume they do not consider that in the first place the seed compared with that of potatoes is a mere trifle; that the sowing of an acre is but a morning walk, provided they are supplied with a drill barrow, which every one should have; and that when sown in drills, a great share of the work can be performed with a small plow. The harvesting can be accomplished in one-third of the time required for potatoes; if you are not provided with a regular turnep hook, a common hoe will answer if made sharp. The easiest way of keeping them through the winter, is

to level a piece of ground in a dry place, build them up in the form of a house roof, covering them with a light coat of straw, and six or eight inches of earth; not more. I have kept them in this way a number of winters, and always found them very nice in the spring. Be sure not to put on too much earth, since if kept too warm they will decay. I know this from experience. W. K."

A hole made by a crowbar, or stake, through the top of turnep heaps, and kept open, will allow the heated air to escape, and prevent the decay spoken of by W. K.

#### CULTURE OF BUCKWHEAT.

MESSRS. EDITORS—I wish to know on what kind of soils buckwheat will grow the best? And whether it is not a great exhauster of the soil? and whether it can be profitably turned under as a green crop? It being objected to by some, that the acid which it contains tends to render the soil unproductive. L. DURAND.

Soils rather light than otherwise are the best for buckwheat. On heavy clay soils it rarely succeeds. From 30 to 40 bushels an acre are not an uncommon crop on soils adapted to its culture, and properly prepared. Buckwheat is not a greater exhauster of the soil than other plants which yield the same amount of straw and grain when removed from the field. A few years since we saw a heavy crop of buckwheat on a piece of land from which the owner assured us he had for thirteen years in succession taken a similar crop. This was in one of the southwestern counties of the state; the soil a light yellow loam. Buckwheat is extensively used in Germany and some other parts of Europe as a crop for a green dressing, and is highly prized. In England, turneps fed on the ground are preferred, as in that way food for animals and the dressing of the soil is at once effected. It is very probable that on a soil divested of alkalies, too liberal dressing of any green plant might prove hurtful at first; but such instances must be very rare, and a small quantity of ashes or lime strewed over the field would prevent the possibility of such a result.

#### LARGE BERKSHIRE PIG, &c.

MR. BOWEN of Eastford (Ct.) has furnished us an account of a pig fattened in that place by Mr. Taylor, which, when killed, at 8 months and 22 days old, weighed 349 pounds. Mr. Taylor purchased the pig at six weeks old, fed it through the summer on skim milk and boiled potatoes, and through the fall with potatoes and corn meal; the latter ground in the ear. Mr. Taylor's manner of feeding was always to give it something whenever it got up from its bed; and he besides gave it a frequent washing with soap suds. We fully agree with Mr. B. in his estimate of the superior value of the Berkshires.

We entirely mistake the character of the New-England farmer, if he does not rise superior to the present pressure, (trying to him as present prices for agricultural products must be,) and that too without the aid of any law, bankrupt, or otherwise. Western products may in some slight degree interfere with those of the East, yet we must remember that we are but parts of one great whole, and that prosperity cannot attend one part without exercising a corresponding influence on the others.

#### ILLUSTRATION OF TRANSMUTATION.

OUR correspondent at Solebury, (Pa.) also gives the following illustration of the transmutation of plants: "An old and respectable farmer prepared a piece of ground, and planted it with pumpkin seed which he knew to be genuine; and behold! they all came up beans, and produced a good crop, as numbers of his neighbors could witness. Now for the explanation. The old man had married a second wife some years younger than himself, and who had a mind of her own, as well as her husband. For some reason, she preferred beans to pumpkins; and when the latter made their appearance, she pulled them up and put out beans in their places; a trick of which the old man never dreamed, but to his dying day considered the fact as an unanswerable argument in favor of transmutation."

#### PAGE'S PORTABLE SAWMILL.

Several correspondents in different parts of the country, have requested some information respecting Mr. Page's newly invented Portable Sawmill, its performance, cost, &c. We hope some of our friends in Baltimore, will give the information desired. By the way, we would suggest to the makers and advertisers of agricultural implements, or others, that they accompany them with the price or prices, where there is more than one. It would be well to state where the implements are to be found. Such a course would greatly facilitate sales, and save those desirous to purchase much trouble in making the necessary inquiries.

#### LIVE FENCES—PRIVET.

WE are unable to inform H. LONG, Esq., of Long Green, Ill., whether the Privet (*Pyracantha*) of which he speaks so favorably, has ever been tried in this country for the purpose of hedging to any extent, or where the seeds of the plant could be procured. If any of our friends are able to inform Mr. L. where such plants or seeds can be procured, they might confer a favor by making it known through the Cultivator.



# DICTIONARY OF TERMS USED IN Agriculture and its kindred Sciences.

**HUMUS.**—Plants are supposed in some form to derive their nourishment from a peculiar substance in the soil, called *humus*, and which is the result of the decomposition of other and previous plants. "Humus is described by chemists as a brown substance, easily soluble in alkalies, but only slightly soluble in water, and produced during the decomposition of vegetable matters, by the action of acids or alkalies." "Woody fibre in a state of decay, is the substance called *humus*." (Liebig.) There are various modifications of *humus* known to chemists; those which are soluble in alkalies are called *humic acid*, while the insoluble modifications are called *humins*. Dr. Dana applies the name of *geine* to this substance, and divides it into soluble and insoluble *geine*, and considers that in the three states of vegetable extract, *geine*, and carbonaceous mold, it is the principle which gives fertility to soils, long after the action of ordinary manure has ceased. He pronounces it to be the "decomposed organic matter of the soil." That *humus* owes its origin to decayed vegetation, can scarcely be questioned; but the manner in which it produces the fertilizing effects on the soil, or rather in what manner it is made subservient to the growth of plants, is a question which is exciting no little interest, and is certainly one of importance to the farmer as well as the vegetable physiologist. The more common opinion has been, that *humus* was no further available than it was soluble, and that in this state it was taken up by the roots of plants, and converted by their vital action into the substance of the plant. Others, and among these are the celebrated chemists, Liebig and Raspail, maintain "that *humus*, in the state in which it exists in the soil, does not yield the smallest nourishment to plants." That plants may receive some nourishment from *humus*, in the shape of humates, or *humus* combined with an alkali, such as humate of lime, would seem probable, as such humates become soluble in water; but the ingenious experiments of Liebig prove that but a small part, if any, of the nourishment of plants is actually derived from that source. *Humus*, then, must be available in some other way than by actual absorption by the roots, and this way, Liebig contends, is by its gradual conversion into carbonic acid gas. Several furious attacks have been made on the German chemist, for his assertion that *humus*, as it exists in the soil, is of no avail to plants; but if *humus* is only the decayed matter of plants, it is clear that, no matter how fine its particles may be, it must undergo some change before it can be taken up by the plant, or be converted to nourishment in any way. The modern doctrine is, that plants derive most of their nourishment, or in other words, the carbon which constitutes the most of their structure, from the carbonic gas of the air, and that *humus* is only or chiefly useful in furnishing a constant supply of this gas for the use of the plant. It seems to us, however, that as carbonic gas is readily soluble in water, or combines with it in large quantities, that in this form it is presented to the roots of the plants, and appropriated by them to their growth or nourishment, as well as from the air by the leaves. This opinion is sustained by the remark of Liebig, that every root and leaf acquired by the plant, gives it a new mouth and stomach. Common manures, such as are derived from vegetables principally, are of little use until decomposition has been effected, and the formation of carbonic gas has commenced. Those manures in which the nutritive and stimulating properties are combined, or those in which ammonia exists with the carbon, are found to be the most efficient and the earliest in their action on plants. The prepared manures belong to this class.

**HURDLES.**—In the cultivation of silk, various methods have been adopted for the feeding of the worms, so that the dangers arising from crowding, or from the filth of their excrements and fragments of leaves, in feeding, may be avoided. In consequence of a neglect of these things, disease is engendered, and the whole of the worms are not unfrequently destroyed. To prevent this, it has been proposed to feed them on a kind of net-work, called hurdles, through the interstices of which all offensive matter falls, and by turning which, the rejected leaves are easily removed, without disturbing the worms. Several American silk growers have directed their attention to this point, particularly Mr. Morris of Burlington, New Jersey, Dr. Goodsell of Utica, Mr. Fox of Mount Pleasant, Ohio, and perhaps others; and very great improvements have been made, combining neatness and ease in feeding, and contributing much to the health and productiveness of the worm.

**HYBERNATION.**—That state of inaction and rest, which some animals and many plants undergo during the cold season of the year, is called hybernation, and exhibits some remarkable phenomena, well deserving the attention of the naturalist. On the approach of winter, the badger, marmot, ground squirrel, frog, toad, snakes, &c. betake themselves to their retreats in the earth, where, in a torpid, motionless state, with but just circulation enough to preserve vitality, they remain until the returning summer rouses their dormant faculties to action once more. Those instances in which animals and insects have been found in positions where they must have remained for centuries, as toads, frogs, bees, &c., in solid rocks, are examples of continued hybernation, produced by being placed in a position where the temperament and the confined state adopted at the commencement of the hybernation, is continued by causes

afterwards superinduced. Thus the bats enclosed in the old mine, at Cheshire, Ct., by a slide from the mountain, while in a state of hybernation, remained in that state for more than a quarter of a century, and were so found at the reopening of the mine. Thus toads, hybernating in swamps, if covered while in that state to a depth which would prevent the usual effects arising from the changes of the seasons, would remain in that position; and the subsequent conversion of the covering matter into stone, would enclose them forever in the rocky mass. It is to this indurating process that we must ascribe the wonderful preservation and continued vitality of those reptiles which are found in the sand stones of the transition series. The condition of plants, too, during our winters, in which the sap ceases to circulate, or circulates but to a limited extent, and in a languid manner, is a species of hybernation. It is a rest of the plant, a cessation of its functions, growth ceases, and what may be called a sleep of the plant ensues. Other causes may produce this rest of plants. Numerous instances have occurred the present fall, (1841,) in which a second blossoming has taken place, and the flowers of the first of October have vied with those of May or June. This reviving of the plant has been noticed in the apple, plum, and pear. It is unquestionably to be attributed to the check which the extreme hot and dry weather gave to the trees, and which produced on them an effect similar to that of the hybernation of tropical plants. The functions of the plant were for a time partially suspended; heat had performed the effect of cold; the secretions of the plant, which prepare it for blossoming and reproduction, had been performed, and when rains succeeded the drouth, their blossoming in October as well as in May, was the natural result.

**HYBRIDS.**—When copulation takes place between different species of animals, the progeny which in some cases is the result, is termed a *hybrid*, as partaking of the qualities of both, yet distinct from either. Thus a connexion between the ass and the mare, produces the mule, and between the horse and the female ass, the hinny, the two most common hybrids among animals. Hybrids among animals do not have the power of reproduction, a proof that muling is a violation of nature's law, by which the races as distinct species are governed. There is at present in the highlands of Scotland, a hybrid between the stag and the mare, the first ever known. Hybrid plants are quite common, and there is no so certain way of producing new varieties, as by muling or cross breeding; and in the language of Prof. Lindley, it is to "this process, more than to any thing else, that we owe the beauty and excellence of most of our vegetable garden productions." The operation of producing hybrids, or of muling plants, is very simple, consisting in nothing more than the applying the pollen of one plant to the stigma of another. Some precautions are, however, requisite in this, such as depriving the flower intended to be fertilized of its own anthers; otherwise the stigma will be self impregnated, and the pollen must be applied at the proper season, when the peculiar mucus which detains the pollen is present on the stigma. The power of muling is among plants, however, confined within narrow limits. Mr. Knight, who was probably more successful in the process of muling than any other man, and to whom we are indebted for some of the finest of our modern fruits, was never able to make a cross between the Morello and the common cherry. Prof. Lindley says he has "in vain endeavored to mule the gooseberry and the currant;" and the apple and the pear, the blackberry and raspberry, have never mixed, though such a result might reasonably have been expected.

**HYDATIDS.**—These are animals, generally pear shaped, found in various animals where they are parasitic, and resembling a vesicle or bladder filled with water. It was for a long time doubted whether they had an independent existence; but as they have evidently a voluntary motion, and as they have the property of acting on matter in such a way as to convert it into a substance like that which constitutes the agent, (which, according to Roget, demonstrates a vital power), there is no reason to doubt it has a distinct animal existence. Hydatids occur sometimes in man, but more frequently in animals. In hogs, it causes the measles; in sheep, in the brain, they cause the staggers, and in the liver, the rot; and some of them are lodged in the tissue of the muscles, while another, the *Hydatid globosa*, is frequently observed on the intestines of pigs. Sheep are best cured of these parasites by a removal from all wet, low land, to dry pasturage. They have, in some desperate cases, where the affection of the brain was indisputable, been cured by trepanning, and the extraction of the hydatids.

**IN-AND-IN BREEDING.**—This is a term applied by the breeders of animals to that kind of propagation where both are of the same blood, and the nearest relations possible. Although some of the most decided improvements have been made by following this system of breeding in-and-in, yet it has only been done by the most judicious selections, and the exercise of cautious judgment, while in the hands of the ordinary breeder, it is sure to run out a stock, degenerating them rapidly, rendering the males impotent in many cases, and the females of little value as nurses or breeders. Experience seems to have proved that crosses of the same variety of animals, but of another family, have made the best animals, and such a course is to be preferred to breeding in-and-in. In some cases, where there is a marked superiority in any race of animals, which it is wished to retain, a cross with a race less perfect in some respects, perhaps, but more vigorous, making what

Berry calls a strong cross, and then breeding directly back to the favorite blood, has been very successful. The first attempts to improve the Short Horns, Berkshires, &c. received serious checks from this system of in-and-in breeding; and both Berry and Collings found it necessary to give more vigor and constitution to their animals, by an infusion of different, and in some respects inferior blood.

**INDIAN CORN.** (*Zea mize.*)—One of the most valuable of the plants cultivated for the use of man or animals; a native of America, but now spread over a large part of the habitable globe, and where cultivated, constituting an article of bread in perhaps more general use than any other. Corn requires a warm climate, a rich soil, and good cultivation; under these circumstances, the product per acre will rise high, many instances being reported of crops from one hundred to one hundred and fifty bushels. In England and Scotland, the average temperature of the summer is too low for corn, and few attempts are made to cultivate it, while in the United States, it is extensively grown in all parts; and in parts of the middle, and over the entire south, it constitutes the chief or only source of bread. There are many varieties of Indian corn. In the excellent treatise on this plant of Dr. P. A. Browne, of Pa., eleven kinds of yellow corn are enumerated; nine kinds of white corn, ten of red corn, or red cobs, two of blue corn, and four of varieties not properly classed with either of these, making some thirty-five in the whole. Since this treatise was written, several new varieties have been noticed, among which is the singular corn called rice corn. Some of the varieties of the white corn differ from each other but by slight shades, and the same remark may be made of the yellow. We have the present year cultivated some twenty-six varieties, most of them very distinctly marked, but some of them with variations very slight, and which we can hardly consider permanent. This is particularly the case with two or three of the small eight rowed whites. Corn differs in the shape of the grain, in the color, in the color of the cob, and in the number of rows on the ear. Northern yellow corn is considered as the most nutritive, is preferred in distilleries, and can be preserved longer in a perfect condition than any other; but the southern white is generally preferred for bread, or rather for the hot cakes, in which form it is most commonly served up in the south. In cultivation, that corn is to be preferred which gives the greatest weight of stalks, cobs and corn per acre, where the climate is such as to ensure its ripening; but where it is necessary that early maturing kinds should be chosen, that variety which has a large kernel and small cob is to be preferred, as the cob is the last part of the ear that reaches maturity, or that state of dryness in which it is safe from mold. At the north, the Canada White Flint, Toronto Yellow, Oswego Long White corn, Twelve Rowed Yellow, Dutton, and Brown cobs are much cultivated; while in the south, the white and yellow Gourd Seeds, Dent corn, &c. are most esteemed, and where the soil is of proper richness, grow to a great size. No part of the world seems so well adapted to the culture of corn as the Mississippi valley, and the quantity already produced is almost incredible. It is cultivated with so much ease, the labor required is so trifling, and the product per acre so great, that it will in some way constitute the great staple of the west.

**IRRIGATION.**—The importance of water to vegetation is known to every farmer, yet very few are the instances in which this natural want is supplied by artificial means. In most cases, by a wise dispensation of Providence, showers supply the requisite moisture, and of all water that can be applied to plants, rain water is found the most suitable; but there are some soils and some crops which require more water than others, and which are greatly benefited by artificial supplies. Thus the drifting sands of Arabia are arrested and covered with vegetation by water; the rice fields of India and the south are flooded to secure a crop; and irrigation, or an occasional flowing of water from brooks, rivers, or springs, over meadows, is found to add much to their productiveness. All water contains more or less matter essential to plants. The soluble salts, the finely divided organic matters, and the richest parts of all soils, are continually passing away in the streams by which our fields are watered, and it is this cause which forms one of the active drawbacks on their fertility. To arrest and detain these matters from wholly passing away, and being lost to the soil, is another important end of irrigation. The more foreign matter any water contains, the more valuable it will be for irrigation; thus rain water is better than that of springs, and rivers below large towns are found to act far more effectively than above. Of this there is abundant evidence in the use of the Thames water below and above London, and particularly the celebrated Craigintony meadows below Edinburgh. Water generally contains sulphate of lime, at least all hard waters do, and a single flowing of a meadow with such water for a few days, besides the other materials it deposits, will leave more of this sulphate or plaster than is usually applied per acre by farmers. Some of the best meadows and lands of England have been formed by flowing them and increasing the deposit, until poor lands have become like the richest alluvion. In this country, few instances of irrigation have as yet been attempted; but where it has been done by system, and with reference to permanent results, they have proved most successful; and the practice, as the soils become older, and other methods besides manuring become proper to promote fertility, will doubtless be common.



## Original Papers from Contributors.

## ON THE CULTURE OF THE POTATOE.

MESSRS. GAYLORD & TUCKER.—Observing an article in your paper, written by a person on the bank of the Hudson, on the subject of raising that valuable crop, the Potatoe, I am induced from my experience in the potatoe way, with due deference however, in all probability to his better judgment, and perhaps to his more practical knowledge, to offer you a few remarks.

Being of the opinion that a sward plowed in the spring, say the last of April, is all important to the preservation of the crop, during a severe drouth, I am extremely careful that the sward should be plowed and harrowed so as to exclude the air, and as deep as it may be done, in order that it may rapidly decay, to afford not only nutriment to the roots of the vines while growing, but add by its sudden decay to the moisture of the ground, so essentially necessary in case of a drouth, that being generally ruinous to the potatoe crop, and against which we should endeavor to guard. My premises may be wrong as to the use of the sward plowed in the spring. To test which, 1st. I will enquire whether a sod would decay so soon and well in cold weather as warm? 2d. Whether, if as well, that object thus obtained can be of equal benefit to the crop, as the consumption of the soil would be, if going on during the growth of the vine and root of the plant? 3d. Will not a stiff sward, well plowed under, (as deep as may be,) and harrowed over in such way that every part of the sod shall not only be excluded from the eye, but the ground absolutely closed and smooth, if plowed just before planting, and not disturbed by furrowing, be the means of retaining moisture not only from rains and dews to fall thereon, but by prohibiting evaporation through the sod from the ground thus covered and under the sod, which in the spring of the year must be necessarily moist? 4th. I am also to enquire whether the ground will be equally strong, plowed in the month of September, after being exposed to the evaporation of the sun and winds from that month, beside the freezing and thawing of the winter, as the same ground would be for a summer crop, turned up just before planting, setting aside the difficulty of my friend's cross plowing of the sward in the spring? 5th. I am to enquire whether your lot will be equally well fitted to plow in the spring, (the sward having been turned up in the fall,) taking into consideration that by your fall plowing you have most probably stopped or closed up the necessary small furrows, which were made to lead off the water found on all grass lands? If laid down by a good and practical farmer, I contend the sward thus laid down will be in a much better condition to plow in a wet spring, than if it had been previously plowed in the fall.

In addition, I would further enquire whether there is not a loss of time, labor, interest of land, and sacrifice of manure, in promoting the culture of your crop by plowing your sward in the month of September, as stated by our friend on the banks of the Hudson—1st. I save time by one plowing; that to be performed immediately before planting. 2d. The labor of my team, as I not only make one plowing answer, but the land will be in better order and my team will have done the work with much more ease, in consequence of the sward plowing easier in the spring than in the month of September, or fall of the year, as nine times out of ten, your sward is too dry to plow with ease to your team in the fall of the year. 3d. By plowing your sward in September for a summer crop, you lose the interest of the land by sacrificing the natural growth of your grass, during the fall, which if left to grow and plowed under in the spring or fed off in the last of the preceding fall, leaving the manure thereon, would unquestionably in either case, add to the culture and value of the spring crop. 4th. If my premises, in preparing the ground by spring plowing, are correct, I apprehend the application of manure and mode of cultivation I have adopted in raising this valuable crop, will by some be considered not altogether improper. In using the manure, (which I contend should never be put under the sod,) I have no hesitation in saying, it should be applied in such way as to immediately and advantageously operate on the present crop of potatoes—to effect which I plow my sward at such time in the spring as to finish the piece just before planting—to be plowed and harrowed as stated, to plant in hills about two and a half feet apart, by furrows made without disturbing the sod thus plowed. This can be done by harrowing your sod with a hinge harrow first and second time in the same way it was plowed; that is by beginning as you began to plow, then to cross harrow so soon as the potatoes start, then apply the manure by top dressing each hill—the same to be immediately plowed by horse and small plow, commencing by turning the furrow from the hill, going as close as possible, not only to loosen the ground, but to cut up weeds, (if any,) which are scarcely found on sward land thus managed; this to be immediately followed by the second plow, turning the furrow to the hill, from the center (between furrows) so as not only to cover the potatoes, but the manure thus put on the hill, protecting the same from the rays of the sun—this to be done both ways of the rows of hills. At the end of eight or ten days, plow them again, turning the furrow towards the hill, and as deep as you can, both ways, leaving the greater part of the sod undisturbed, through which the roots will find their way—you then have your hill left in the shape of a hollow square to receive the rains—and that without a hoe, saving the ends of your field, thus finishing the culture. I have raised by the above method from 300 to

330 bushels to the acre, in lots from three to five acres, and that of Kidneys, the most difficult to raise of any other potatoe. Should you deem the method of any consequence to the farming interest, give the enclosed a notice in your useful paper, being the only object of the writer, of which he assures a Westchester Farmer. COLUMBIA. Claverack, N. Y., Jan. 18, 1842.

## REMARKS ON VARIOUS SUBJECTS.

EDITORS OF THE CULTIVATOR.—I propose to send you a few miscellaneous remarks, and submit them to your disposal.

## I. THE CORN CROP.

I have no mammoth yield to record, though the truth would warrant me in saying that I obtained a result little if any inferior, to any crop grown in the town where I reside—thirteen two horse wagon loads of stalks, well put on, having been taken from the piece, containing but little more than two acres. The soil, rather hard and stony, was prepared in the following manner: One acre had oats the previous year; on this was spread thirty-eight loads of manure, chiefly from stables and sheds, and plowed once. The other acre had been in meadow about six years, was plowed about the first of May, after a thorough harrowing; by the way, let me remark, that this is a very important preparatory step, both as respects the ease of plowing and the decomposition of the soil. The land was twice harrowed after plowing, then furrowed slightly both ways, at the distance of three feet; the latter piece manured in the hill, at the rate of eight loads to the acre, with hog manure and night soil compost. The planting was commenced on the 19th, and finished the 25th of May. That portion manured in the hill, although planted last, soon out-stripped the other, although the quantity applied was only about one-fifth as great as that spread broad-cast, and the crop I think exceeded that one-fourth if not one-third. From this I was led to conclude that manure, if in a suitable condition, applied to the hill, produces a far greater effect, than when spread and plowed under. Great care, however, is necessary in planting, as otherwise in a dry time much of the seed is liable to perish.

## II. FALL PLOWING.

It is no doubt best in many instances to plow land in the fall, but as a means of destroying worms I think its tendency has been much overrated. Some years since I plowed a piece of meadow, just as winter set in, the land freezing very hard in a few hours after the work was completed. But lo! when spring opened, the ground, for aught I know, was quite as lively as ever, full of hungry mouths, satisfied with little or nothing short of the last remnant of vegetation.

## III. NATIONAL AGRICULTURAL SOCIETY.

Should the tendency of this Society be to make labor universally reputable, to elevate the laborer every where to his proper standing in community—to infuse more deeply the maxim that,

"He that by the plow would thrive,  
Himself must either hold or drive;"

then a bright era is dawning upon us. But without any over-wrought expectation from this source, I remark that the plan of a Society, as proposed by F. Burt, in the Cultivator, for Dec., meets my hearty approbation. Individual effort is the main thing in the business of agriculture, as in every thing else.

## IV. WHITE DAISIES.

Your Plymouth correspondent, Calvin Butler, places a higher value on "daisy hay," than I had supposed facts would justify. Still he may be correct. His stock, especially cows, would not suffer by comparison with any I have seen. I conclude, however, that he does not intend to encourage the cultivation of daisies, where they have not already obtained possession, but rather to make the best disposal of them in existing circumstances.

## V. AGRICULTURAL PUBLICATIONS.

Some persons object to these because visionary notions are, perhaps, not unfrequently advanced in them. And what then? Where is the gold without alloy? Similar objections might be urged against every department of science. I have read every number of the Cultivator from its commencement, and if without benefit, the opportunity has not been wanting. A neighbor of mine proposed as the best means of promoting the interests of our calling, to hold district meetings for a free interchange on this subject. This is no doubt a good suggestion; but the monthly meeting at my house, I could reply, is preferable; attended usually by the greatest number, with the least trouble, although some may have traveled a thousand miles, and very likely with the most benefit. There is no doubt, as a general thing, quite too much puffing of new varieties of seeds, implements, &c., and no small degree of caution is necessary in regard to these matters. We have long had better potatoes than the Rohan, better corn than the Chinese, and, dare I say it, better swine than the Berks-shires. Still there is much room every way for improvement. We need frequent hints on subjects with which we are in a measure acquainted, and you will please send me your paper until countermanded.

I ought to have remarked while on the first subject, that I deem the advice to cut and root corn as soon as glazed, not correct. My first stocks were cut soon after that period, the rest some days later. There was a perceptible looseness of the grain on many of the ears of that cut first, which did not appear in the portion last harvested. In the first instance, the fodder was perhaps the most valuable, but as the grain is the first object, I

prefer a greater degree of ripeness. Wishing you a happy and prosperous new year, I conclude.

GAUIS BUTLER.

Clinton, Oneida Co., N. Y. Jan. 1, 1842.

## ANOTHER VERMONT OAT CROP.

MESSRS. GAYLORD AND TUCKER.—I have raised the past season a good piece of oats. I am sensible it has several times been exceeded; but the result in profit is good, and I have been asked to communicate to you by my brother farmers. It will come in competition with Gov. Hill's crop, but nowhere near Mr. Junes', if his measuring after threshing should be as high as his guessing. My piece consists of four acres, from which I have threshed and measured 389 bushels. The result in profit is as follows:

389 bushels of oats, at 45 cents per bushel,.....	\$175 05
976 bundles of straw, at 2½ cents,.....	24 40
Expenses,.....	\$199 45
2½ days' plowing with team,.....	\$5 00
2½ days' sowing, and harrowing, and team,.....	5 00
9 bushels of oats, 50 cents,.....	4 50
13 days' reaping, binding and stooking,.....	13 00
2 hands 1½ day with team, housing,.....	4 50
16 days' work threshing and cleaning,.....	10 67
Interest on land 100 dollars per acre,.....	24 00

Whole expenses,..... 66 67

Clear profit,..... \$132 78

The soil on which the above crop grew is alluvial. I came in possession of it (with the remainder of my farm) in the spring of 1839; it was then what is termed bound out meadow. I broke it up, put 25 loads of barnyard manure to the acre, and harvested 60 bushels of corn per acre. 1841 again planted with corn, applying 30 loads of same kind of manure to the acre, and harvested 65 bushels shelled corn per acre. You see the land is not in debt for previous manuring. I observed your remark in the account of Mr. Junes' crop of oats, recommending sowing thick. I don't know but my crop might have been increased by using a larger quantity of seed. I have some doubts, however, as they appeared to be thick enough, especially as I stocked the land to grass with the crop. I will try the experiment of sowing more to the acre. JONA. C. THRALL.

Big Elm Farm, Rutland, Vt., Jan. 31, 1842.

## CANADA THISTLES—POTATOES.

MESSRS. GAYLORD & TUCKER.—Among the various plans pointed out in the Cultivator, for the eradication of this pest of the farmer, there is nothing that can be done with certainty on a large scale. I can, however, point out a simple, cheap, speedy and effectual mode for destroying this troublesome weed. When a field, or any considerable part is overrun with thistles, lay it down in clover and grass for hay. Mow two or three years, and they will entirely disappear. In this manner a neighbor and myself have treated, each of us, separate fields much infested with them, and with the same success. I cut the first crop of grass in 1840, when the thistles were very thick and strong; they were mowed, dried and put into the barn, the cattle eat them greedily—last summer there were only a few weak, straggling plants; my neighbor's field is entirely freed from them.

The proper time for cutting down is before the flower buds burst; if cut down earlier they again spring up; if the blow is allowed to expand, before the plant is cut down, the seed ripens—or if allowed to stand till ripe, the seed does its full mischief and the plant springs up again. This is the case if buck-wheat is sown with a view to destroy them.

Your correspondent Mr. Roberts, by chance, hit on the proper season for cutting them down, but attributed their destruction to the wrong cause—the dry season. Be the weather dry or wet, if cut down at this stage of their growth they die. They are usually in this state at haying time.

Last season during the heat of the day, I went through my grain fields, with a blunt sythe and cut down thistles and other weeds—the grain being flaccid from the sun's rays, bent before the sythe, and was little injured, the weeds being full of sap, were cut down, and before they commenced a second growth the grain over-topped them. The public road running past my farm was a complete nursery for thistles a few years since, when I entered on it; these are now all destroyed by cutting down at the season recommended.

One of your correspondents recommends during winter to cut off from the Potatoes made use of, what in this quarter is termed "the seed end," and string them up for seed in spring: This piece of economy I have practiced to my loss. Being put into the cellar while the wound is green, to prevent injury by frost, they there get heated, and rot. Last spring and that of 1840 I had the greater portion of my potatoes to plant a second time, from using such seed—the evil I detected last spring when too late—the rotted seed was thrown away as taken out of the cellar—not suspecting any mischief, the remainder was planted; the consequence was that the seed which had got heated, although apparently quite sound, did not vegetate, or came up mere spindles, good for nothing. A number of my neighbors suffered from the same cause, and are this winter feeding their "seed ends" to the hogs. ASHOL, L. C., Jan. 15, 1842. SCOTTS.

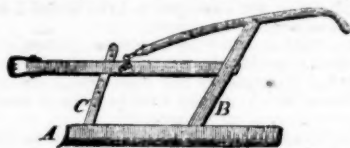


## ON THE CULTURE OF COTTON.

MESSRS. GAYLORD AND TUCKER—Should you not receive a better article on the cultivation of cotton, than I am capable of writing out for you, this shall be at your service. I cannot affirm my mode to be best, as many in this state and elsewhere out-crop me; whether better crop masters, better land, more suitable to the article, or work harder, I cannot say. Nor can I give you a detailed mode as plain, or even as satisfactory to myself, as many others I could name; but in pursuance of your request, "I'll try," as an officer once said.

Not having the opportunity to plow in fall and winter as your farmers do, we are compelled to do the best we can. We seldom get our crop into market even by the 1st of January, and frequently occupied in picking cotton till 1st of February, and some pick until plows start in the spring; thus, our plows seldom get to work until necessary to "push along," to "keep moving."

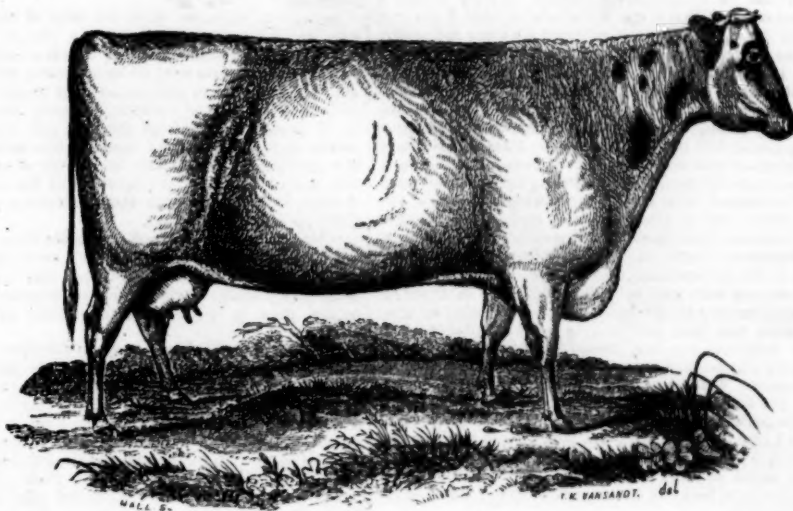
When our land has been the preceding year in cotton, we either pull up the stalks, throw several rows into one heap row, roll them into heaps, and burn; or thresh them down with cudgels, to be plowed in. The latter plan I pursue. Having cut, heaped, and burnt up what logs may be lying on the ground, we commence our plowing operations by running a furrow (straight on level land; with the hill on rolling or hilly land,) in the old water furrow with a shovel plow; to this, we throw two furrows with a turning plow, and leave it so until time to plant. Should the land have been in corn, many cut down corn stalks, pile and burn, (I plow all in,) and proceed as above; if in oats, I invariably flush deep with a two horse plow, and run off rows as before, 4 feet apart in thin land, and 5 in rich land; on our strongest land, rows are even as much as 8 to 10 feet apart. The plowing so far done, cannot, in my opinion, be done too early. From the 1st to the 5th of April, some seasons earlier, we commence to plant cotton; having completed planting all corn that the land will admit planting, and now break out the entire row well, and as deep as we can, about 4 inches the deepest, being particular to break out just in advance of the hands planting. The ridge would be the better for being harrowed with an iron tooth harrow, leaving it in fine condition. Then open out the furrow for seed with some implement about three-fourths of an inch deep. I use the following: take a piece of



timber 3 feet long, 3 inches square, round the lower side; fasten by a mortice and tenon to the bottom of chip (b) of shovel plow, about midway of this piece; near the front end, let in a piece 2 1/2 by 1 inch (c) long enough to pass up through the beam, and have holes in it and one in beam, so as to raise or drop the lower piece; the front end of the lower piece (a) has a shovel of some size, but to project below about half an inch.

This row should be as straight, or as regular in its curves as possible, to permit after work being done to the best advantage. In this furrow on the ridge we sow seed, having had them hauled and dropped in parcels at suitable distances in the field, from 2 to 4 bushels to the acre—not being particular, only in having enough; then cover with a wooden tooth harrow, or a board about 6 inches wide, 18 inches long, concave on the lower edge, and pinned with the heel pin of shovel plow on the chip. Now, the reasons of all this: we throw three furrows together some time before plowing, to allow the bed to settle, as earth with some firmness is better adapted to the young tap roots at its first striking; the subsequent furrows leave the row clean and light, thereby giving the cotton a fair start; as the planting cleans off all the original bed exposed; the opener leaves the earth behind the shovel somewhat compressed, and not the little variations; the harrow or board levels the bed, covers and takes off clods, &c. We do not desire to cover cotton over half an inch; and indeed the covering is not necessary, unless in dry weather; for a light shower will so beat the seed in the soil and compress the wool left on seed so as to germinate immediately.

Having planted about half the crop, we pursue other business for a few days, so that an entire scraping comes on not at same time. One hand and horse can open 10 to 15 acres 4 1/2 feet apart. One hand can sow seed, and one hand and team cover. But I look on it as very hard work to drop 15 acres; though I have done it myself, I could not have repeated. I always begin to scrape as soon as I have a stand up, grass or no grass, and no regular time for this. On referring to "Farm Book," I find in '40—"planting on the 27th of March; coming up on the 6th of April; began to scrape on the 16th." In '41—"planting 2d of April; began to scrape on the 17th." I have usually begun to scrape by running the bar of a turning plow next to row; throw from the plant to water furrow about 14 to 2 inches deep; but believing with others it is best not to take earth from the bed, I now use a scraper, attached to chip of shovel plow, that will barely sweep off the surface as near the plant as possible, throwing the surface towards middle of row. When this is well done, one good hand can clean the remainder as easily as is usually done with two ordinary hands—by passing the hoe through the row, cutting out all, to one or two stalks the breadth of the hoe apart, say about 10 inches apart, leaving the row perfectly clean and scraped.



IMPROVED SHORT HORNED COW "STELLA"—(Fig. 24.)

OWNED BY J. M. SHERWOOD, ESQ., AUBURN, N. Y.

Which obtained the first Premium at the Fair of the New-York State Agricultural Society, at Syracuse, Sept. 29, 1841. "STELLA" was bred by F. Rotch, Esq., Butternuts—is mostly white, with red ears, and a few red spots on her neck and legs. She was calved July 20, 1836. Sired by "NORTH STAR," Herd Book, 2382.

Dam, Stately, by Young Denton, H. B. 963	N. STAR, sired by Young Denton, H. B. 963
G. "Harriet by Young Denton, 198	Dam, Tuberosa by North Star, 460
G. G. "Henrietta by Comet, 155	G. "Tuberosa by Cripple, 173
G. G. G. "Hannah by Henry, 301	G. G. "Tulip by Comet, 155
G. G. G. G. "by (Danby), 190	G. G. G. "by (Landrom), 353
G. G. G. G. G. "by grandson of Favorite.	G. G. G. G. "by (Danby), 190

In a note accompanying her pedigree, Mr. Sherwood says of Stella:—"She calved on the 31st of July last, when our feed in this county was all destroyed by the drouth, yet she milked far better than I expected, both in quantity and quality—in quality she is very superior. For aptness to take on flesh, she has few if any equals, thereby combining the two valuable properties which are so much required in this country, milk and flesh. For coat and handling, I am vain enough to think that she would stand a comparison with the celebrated English herd."

CORRECTION—The two last lines of the pedigree of Archer's dam, p. 34, should have read as follows: G. G. G. G. Dam, Punch, 531 In the pedigree of Rolla, for "Old Red Nose," read G. G. G. G. G. Hubback, 391 "Old Red Rose."

This is, as Dr. Dewees used to say, a "sine qua non," absolutely necessary; for should there be young grass or weeds, they will soon outstrip the plant, it being very slow in growth while young. About a week or 10 days, we commence moulding the plant with a hill tongue or scooter plow, or with a new implement, on a 40 year old plan—the double shovel, both moulds throwing the earth same way, and square at the bottom; or some use the shovel, others the turning plow. We make it a point to get the plows in at this work as soon after scraping as we can, and get back with hoes to clean once more, either by scraping again, or dirting; and if pleasant weather, cut out at this time every other stalk. (In poor land I have the stand as at first—single stalks, about 10 to 12 inches apart; reducing to a stand one stalk, in good land, about 2 feet apart; in rich land, even 3 feet at times. If this has been done well and in due season, unless a "et spring, the push is over, as we now cultivate with double shovel, (I prefer it to anything I have tried,) cultivator, and harrow, just as the growth of grass and appearance of earth indicate—governed by—keep clean and stir well. I throw a little earth to the plant the two or three last workings, but never make a hill unless on hill sides; then merely to prevent washes. I think any implement seldom necessary in cultivating a crop, except the above, unless "the crop is rightly smartly in the grass;" then we must use the turning plow—the greater good to be considered. Purslain, and weeds, and crab grass grow here amazingly fast. I work our crop with hoes generally three times, and with plows four times.

The way scraping is generally done, is to bar off, throw earth in water furrow; a hand chops through the row and cleans the side next him, returns on the other side, cleans that, and cuts up the surplus cotton, leaving one or two stalks breadth of hoe apart; or two hands clean the row along—one on each side. I make it a point to plow with a two horse plow as long as I can have time in breaking up, and to plow as deep as I can. This season I am breaking up near on to 6 inches; I think probably average it. One great oversight in many farmers and planters, they do not commence scraping early enough, leave the cotton standing in a mass, I may say, until it becomes tenderer than it is by nature; and when thinned out it becomes yellow, and checked in growth for several days. Whereas, if thinned earlier, it commences to grow off earlier, and sends off branches nearer to the earth; and as the lower bowls are larger and better than the top, and more certain to remain on, it is highly advantageous to encourage early growth, and lower limbs.

We usually "lay bye" crop about middle of July to 1st of August latterly. Some 8 or 10 years since, seldom worked as late as 10th of July. Our land then was not infested with purslain and crab grass.

Log Hall, Miss., Jan. 9, 1842. M. W. PHILLIPS.

## CULTURE OF MUSTARD.

MESSRS. GAYLORD AND TUCKER—Permit me to call the attention of farmers to the cultivation of mustard seed. I believe it is not generally known how large a quantity of this seed is annually consumed. It is imported from Holland and the more southern parts of Europe, and sold in our atlantic markets at from three to four dollars per bushel. It is also raised in England and manufactured for the table, in which state it is exported to this country in large quantities. I believe that farmers who have soils suited to the growth of this seed will find it much more profitable than any other crop. It requires a rich, clean, moist soil; should be sowed about the time of other spring grains. Four quarts of brown seed will stock an acre sown broad-cast. It is sometimes sown in drills and hand hoed. It usually ripens quite uneven, and should be cut when it is sufficiently green to prevent waste by shelling, and stacked upon canvass, the top being thatched with straw to protect it from the weather. It should remain in this situation till it is thoroughly cured. By this treatment, the unripe seeds will be sufficiently nourished by the stalk to render them plump and sound. It should be threshed upon canvass, as there would be considerable waste by removing it to a threshing floor. Particular pains should be taken in cleaning the seed. It will ordinarily yield from ten to twenty bushels per acre. Several individuals in the town of Denmark, Lewis county, N. Y., raised small patches last season which yielded at the rate of twenty bushels per acre. Messrs. French & Davis, mustard manufacturers of this city, offer to contract with farmers for what they can raise at \$3.50 per bushel for brown seed. The yellow seed is less valuable for manufacturing purposes. For this description of the culture of mustard seed I am principally indebted to interviews with English farmers and mustard manufacturers.

Albany, Jan. 1842.

N. R. FRENCH.

EDITORS CULTIVATOR—I observe in the excellent agricultural address published in your 12th number last year, page 199, a material error, touching the dividing meridian of the equal portions of the eastern and western population of this State. Twenty years ago and backwards, the north and south line, equally dividing our State population, was traveling fast westwardly, but since the rage for emigration became so great, it became stationary, and is now traveling east, as will be seen by comparing the position of that meridian by the census of 1830, to that of 1840; and in looking on the map of the State, and seeing where that line now is, that is, east of Utica, it will seem a good while yet to come before it gets to Auburn, 80 miles west, as is there intimated. It is also stated that the revolving rake was invented by a colored man. The common horse rake was, not the revolving Yours, &c. W.



## TRAVELING MEMORANDA—No. 8.

EDITORS OF CULTIVATOR—While in New Jersey I learned one fact that I was not aware of, but I am not certain but I may have mentioned it in my last letter, that the Peach tree which has heretofore afforded such a large income to the cultivators in this state, has almost entirely failed. This is a great loss to the people—for it seemed as though this tree flourished better than any other crop upon their light sands. It is impossible for those unacquainted with the fact, to conceive what an advantage the owners of such land have derived from marl. Some of the most valuable land opposite Philadelphia is that upon the "reclaimed meadows," from which the tide has been dyked out at great expense, and which requires great care and sometimes great expense to keep in repair. Mr. Benjamin Cooper, at Camden, informed me, that one break in his embankment, cost \$500 to repair. I hope if there are any who may envy those who live in situations that seem better adapted than their own to make farming profitable, that they will bear in mind that the most favored locations are not always the most profitable, for there are a great many out-ones, that the small farmer of the interior would not only find burdensome, but ruinous. For instance, the cost of the fence and dykes on Mr. Cooper's farm, would buy an equal number of acres where I live, of better soil, and fence, plow and sow the whole to wheat, and put up comfortable farm buildings. If we could see and know more of one another, we should learn to be more contented and happy in our humble situations.

It was lamentable to witness the waste of land and wreck of fortunes around Philadelphia, which the Morus multicaulis mania produced. Patches of the trees are yet to be seen on many farms, but little that looks as though the owners ever intended to convert them into their only proper use, the feeding of silk worms.

Fifteen miles above Philadelphia, on the banks of the beautiful Delaware, I saw another great waste of wealth, in Mr. Biddle's "great forcing house," [not the bank] where he boasts that he can produce grapes every month in the year. Such vast outlays of money upon such objects, are not so creditable to the owner as many of the small and almost unknown improvements in farming and farming implements that we find in every neighborhood. For instance, at Camden, I saw a new drill barrow, lately patented by Mr. Jones, which I consider preferable to any other that I have seen, and which will prove of more advantage to the cultivators of the soil, than all Mr. Biddle's acres of glass hot houses, although he can boast that he raised the finest grapes in the world. Again, the improvements that Mr. Edmund Morris of Burlington, has made in the manner of feeding silk worms, will be the means of producing more real wealth and happiness in the world, than all the "forcing houses" [banks included] in Christendom. His manner of destroying the vitality of the worm in the cocoon is so simple and easy, that I am surprised that it is not universally adopted, as it must be known to most silk raisers. In the roof of his cocoonery he has a large window, enclosed by a small close room, in which the cocoons are placed, and the heat of the sun is so great as to kill the grub quite as effectually and with less trouble than baking in an oven.

Mr. Morris is one of those worthy friends of improvement that deserve to have their names kept before the readers of all agricultural papers. And the way that he knows how to welcome a friend, is the same that I have found in so many hundred instances during the summer of 1841, and which has tended so much to make me feel proud of "My own native land."

Burlington is one of the most delightful towns in the United States—And reader, I beg you to remember why! Every house has its garden, and every street its shade trees. And now, as you hope to have your name remembered with a blessing by future generations, promise me that ere another summer sun comes, parching up the earth, that you will make one little green spot where you have planted at least one tree.

At Trenton, I saw, to me, a new kind of crop. Cayenne pepper is cultivated to considerable extent, and being dried is ground in a common grist mill, put up in barrels, and brings about 20 cts. a pound. The grinding costs one ct. a pound. Even at the present low price, it is found a very profitable crop, easily cultivated, and will grow upon any rich soil.

From Trenton to New-York, I had a night ride over that much traveled rail-road, as my anxiety to be at the State Fair at Syracuse compelled me to push forward, leaving many of the beauties of New Jersey unseen; but as a Sunday intervened, I took that only opportunity to visit a most delightful spot, and met with a most hearty welcome from that excellent friend of agricultural improvement, Mr. Charles Downing of Newburgh. A beautiful work upon Landscape Gardening, lately published by his brother A. J. Downing, has rendered the name familiar to the lovers of rural scenery in this country. I had not the pleasure of meeting the author, but from what I saw of his excellent nursery, and tasteful mansion, I was satisfied that he was such a man of taste as would confer lasting benefits to the country, if he and those like him would write much more for the gratification and information of their fellow citizens. From my acquaintance with Mr. Chas. Downing, I am confident that those who desire to order trees from his well filled nursery, will be well satisfied to be assured of finding him a gentleman of integrity, and that they will find the trees exactly as he recommends them, which is a small matter of information that may be useful to some of your readers, and one that I hope the lovers of good fruit may profit by.

In passing along the North River, the eye of the lover of delightful country residences, meets with constant pleasure.

It ought to convince us of the folly of crowding our sons into "a genteel situation" in a city, to see such a large portion of them make a wreck of all happiness, and sink in poverty into an early grave, while the few whom fortune favors with the mass of wealth that would not suffice the mass of citizens if equally distributed, are to be found escaping from the city and spending their wealth in ornamenting the banks of this beautiful river; thus proving that in looking for real social enjoyment of life, the country is ever preferable to the city. There is much food for reflection and profitable application in that trite old proverb, that,

"Man made the town, but God made the country;" and those that love Him, ought to love to cultivate, improve and beautify the works of his creation, and to be more happy and contented amid the gorgeous beauties of nature, than in the artificial atmosphere of a crowded city.

And now, Mr. Tucker, I come to the time when I first had the pleasure of meeting you face to face, although we had long been acquainted—and although it may not be particularly interesting to you, it may to some other of those acquaintances of mine who I am in the monthly practice of meeting in your columns, to describe some of the things with which you are already familiar.

I will therefore address myself to them—I landed at Albany, upon one of those delightful days in the last of September, for which the autumn of our country is so justly celebrated, for affording the most beautiful weather imaginable.

After depositing my baggage, (and here let me observe that I am one of those old fashioned men who do not scruple to "carry my own bundle,") and reading a few letters from that place which I am never able to forget, and which every man that has "a home" should ever remember, I undertook to find some one in this strange place that was not altogether a stranger to me, although I was personally unknown to all. It was no easy matter, for all my agricultural friends seemed to be actively engaged in busy preparation for the approaching carnival at Syracuse. Mr. Tucker had took himself off from his office, and was as busy among bulls and boars, and horses, hogs, sheep and cows, superintending their embarkation on board the rail-road cars, as though to that vocation he had been "well bred." After seeing "all right" for an early start the next morning, I soon found myself quite at home in his house, where we were soon joined by Mr. Bement, and at peep of day were seated in a cab ordered over night to take us out to the rail-road at the top of the inclined plane, a mile or more from the city; for be it known that the Albanians have not the most convenient rail-road arrangements in the world.

Our trip to Syracuse was a proud one—twenty-four cars loaded with stock, and to which was attached a passenger car occupied by Messrs. Tucker, E. P. Prentice, Van Bergen, Bement, Chapin, and several other gentlemen who owned the stock, or were interested in some way—the day very pleasant, and the novelty of such a train exciting more interest and attention than perhaps ever was bestowed upon any train that ever passed over the route, and our company all being in a high flow of spirits, without being excited by ardent spirits, all tended to make the trip one to be long remembered.

Another fact that should be remembered is, that the rail-road companies between Schenectady and Utica, and between Utica and Syracuse had tendered the use of the roads to the State Society, and all the agents and conductors seemed to evince a most laudable zeal in getting their unalloyed fare safely through. I am satisfied that this praiseworthy effort of those gentlemen of Albany and vicinity, who exerted themselves so much in getting up this show, will tend much to wake up the sleeping energies of the country, to the importance and benefit of paying more attention to agricultural fairs.

Of the proceedings of the fair, it is not necessary to speak, as that has already been published, but the reception that I met with there was such as to convince me that the labor of those who devote themselves to encourage their brethren in the spirit of agricultural improvement, will be sure to meet with an ample reward from them whenever they have an opportunity to show their respect.

One of the marks of respect of which I feel justly proud, was one of the most elegant pitchforks that ever I saw, and which has been universally admired by the thousands who have seen it, that was presented to me by and in the name of the State Agricultural Society of New York, by H. S. Randall, esq., Cor. Sec'y of the Society, of Cortland Co., where it was manufactured, by Mr. Lewis Sandford. I also was presented with one of Barnaby & Moore's premium side hill plows, which has also been much admired by all who have seen it since it has been in my possession. I was also presented with another premium plow, but as I failed to receive it before I left Buffalo, I will take another occasion to speak of it when it arrives. The Side Hill Plow is already described in the Cultivator, and I have no doubt will supersede all other plows for that purpose; this one also working admirably in all kinds of plowing.

Although some appeared to be disappointed in the quantity of stock that was exhibited, I think that, considering this was the first effort of the State Society, all ought to be well satisfied, as the great object was gained in the strong interest manifested among ten thousand people who were present. No doubt that another year will produce one of the greatest fairs ever had in this country, if the same enthusiastic spirit then manifested con-

tinues to exhilarate the mass of New York farmers, of which you may well be proud, for I fully believe that no section of our country can make a display of such a mass as was seen at Syracuse, of more respectable "well-to-do-in-the-world" looking people.

There are a great many small matters that I might dwell upon, and which would prove interesting, but I find myself getting over the ground so slowly, that I must needs pass them over for the present, and again take my seat in the car attached to the great stock train, upon the evening of the first day of October, spending a very cool night upon the road, and arriving in Albany for breakfast, on my way to Boston.

Although time and space are almost overcome by rail-road facilities between distant places, yet now time and space forbid me from giving a description of Mr. Prentice's farm near Albany, and the beautiful stocks of Short Horns and South Down Sheep, which I saw there; but I will assure my readers that if they wish to purchase they will find Mr. P. a gentleman whose word may be depended on, and his stock exactly what he may recommend.

SOLON ROBINSON.

Lake C. H., Ia., Jan. 15, 1842.

## WOBURNS VERSUS BERKSHIRES.

MESSRS. GAYLORD & TUCKER—In your December No., A. B. A. accuses me of using petty and disingenuous arguments. His style is overbearing, but I let that pass, as I suppose it is his manner.

It was a *grand idea* and *ingeniously* stated, that the Berkshires would have beaten (that is would have been kept cheaper than) the Woburns, if they had been fed upon the shipstuffs, and the Woburn upon corn. In plain English, if 44 bushels of shipstuffs had been given to the Berkshires, and only one bushel of corn given to the Woburns, though the bushel of corn cost as much as the shipstuffs, yet the former would have beat the latter. How candid!

The effort to induce the belief that it was unfair to give only that part of his experiment in which the corn was mentioned, is another proof of his *fairness*! Why should I have mentioned the shipstuffs? The Woburns got none of it.

The experiment of feeding Marion was detailed as an answer to a plain and direct question, (from A. C. of Gainesville, Ala., see Cultivator p. 117,) which I was requested to answer by the editors.

I had a *right* to believe his statement, (which was minutely detailed by Mr. A., the quantity used, the cost of each article, the argument and conclusion,) was all correct. But as Mr. A. himself tries to make it *doubtful*, I shall say no more upon the subject.

It shows *great fairness* to bring pigs fed in the summer time against those fed in the winter. Mr. A. can but know there is at least a difference of 25 per cent. in favor of spring and summer feeding. This difference between warm and cold weather was strikingly illustrated in feeding my pigs last winter. The first twenty days were warm for the season, and Bernice gained sixty-one pounds, being an average of over three pounds a day.—The next ten days were very cold, the thermometer ranging from 3 to 20 degrees, mostly 7 and 8 degrees, and her gain in ten days was only eight pounds. Here the difference in favor of warm weather was more than 250 per cent.

When several trials had taken place between the Woburns and Berkshires, and many of the advocates of the Berkshires admitted that the Woburns would gain fastest, they still contended that they were the greatest consumers. I determined they should not avail themselves of this argument, unless they could *prove* it.—And accordingly proposed in the Kentucky Farmer, a trial by measure. This proposition was taken by Mr. Duncan. (See Ky. Farmer, vol. 4, pgs. 315 & 332.) It was also taken by J. F. Taylor. I selected Patience and Courtenay, two Woburns, to be fed against Caroline Scott and Belinda, two Berkshire sows. It was not my fault that Caroline Scott was not fed; and if there were two Woburns, did not the Berkshire have a better chance of beating one of them.

Marion was fed upon old, hard, whole corn, and the sows fed by Mr. Weathers had the same kind of corn.

The Berkshire sow in this experiment (though beaten so far by the well Woburn), yet gained 21 lbs. in ten days, fed upon less than 5½ lbs. corn a day; while Mr. A.'s sows, fed (as amended) upon seven and a half lbs. of corn a day, were losing flesh! Belinda weighed when put up, 302 lbs., so that although she had the benefit of a stall, she had 52 lbs. more flesh to support out of her allowance. Courtenay weighed 425 lbs. which is 175 lbs. more than Mr. A.'s "supposed average."

The statement about my keeping "the poor, miserable, stunted Berkshire boar, to show off against my fat Woburns," is as "petty and disingenuous" as it is malicious and destitute of truth.

Mr. A.'s apology for Mr. Fanning shows *great fairness* in wishing to make it appear that his pigs were very small. Mr. Fanning says, "the pigs are the largest Berkshires of this vicinity, of their age," and "are very superior."

I now come to the most extraordinary part of Mr. A.'s letter. He says, "But for my own part I am yet to learn what the Woburns are." So it seems he knows nothing personally and practically, of the Woburn hog!! And while every experiment to decide their relative merits has resulted in their favor, he still undertakes to *write them down*. If Mr. A. had not been known to be the *fairest* and most *disinterested* person, some might have thought there was *envy* or *selfishness* in this.



I regret that we have not had more trials of the relative value of the different breeds of hogs. It is a matter of great importance to the agriculturist. I have made many experiments myself, and am satisfied that a proper course of experiments would be of great benefit to the country; but if I were to give those that I have made, it would be said by the advocates of other breeds, that I was partial and in favor of the Woburn. Well, I acknowledge such preference; and would still prefer the hog that will beat them.

If the advocates of the Berkshires had been willing to risk the reputation of their hogs, we might long since have had this matter settled. Some of them write big bantering letters to their correspondents, but they never come up to the trial.

I agree with Mr. A. there are many hogs called Woburn, but this neither increases nor lessens the value of the variety which I have.

To take Mr. A.'s statement as amended, I should not want more than seven and a half pounds of corn for each one, to prepare a lot of 200 Woburns for market, in six weeks feeding, and each hog would give an increase of 100 lbs. in an open lot.

Mr. A. intimates a willingness to feed Windsor Castle. Now this is the right spirit, I hope he is in earnest.

I propose putting my white Berkshire boar *Albion* in the hands of some disinterested person, to be fed against the Black Berkshire *Windsor Castle*. Mr. A. and his brother have done much to prejudice the public against this hog. Now let them come fairly and honestly up to the test, and see which will give most flesh for food consumed.

Although we have never had such trials as I could have wished and proposed, yet we have had enough to establish some facts, a few of which I will give you, and will at the same time observe, that the advocates of the Black Berkshires or Kennilworths, can have opportunities of making more experiments with the Woburns.

1st. It is a fact, that in the only trial I have known to determine this matter, the Woburn *Patience* was proved to be a smaller eater than the Berkshire *Belinda*.

2d. It is a fact that in the trial between J. Barclay's Woburn and Wm. Barclay's Berkshire boar, that the Woburn boar beat the Berkshire, fifty pounds in thirty days feeding.

3d. It is a fact that in the trial with Mr. Fanning, my pigs gained forty lbs. more, in sixty-one days feeding, than his did, in one hundred and twenty days.

4th. It is a fact that my pigs weighed nearly two hundred pounds heavier than Mr. F.'s at six months old.

5th. It is a fact that Mr. Fanning said his pigs "are very superior," and "the pigs are the largest Berkshires of this vicinity of their age."

6th. It is a fact that in the trial between Courtenay, (Woburn) and Belinda, (Berkshire) that the Woburn gained nine pounds more, in ten days, upon the same allowance of corn.

7th. It is a fact that *Patience*, although made sick by trying to eat as much as did the Berkshire, still gained as much in ten days, upon the same allowance of corn.

From the above facts it is proved, (in the case of *Patience* and *Belinda*), that the Woburns are the smallest consumers, and that they and their crosses, will nearly double the Black Berkshires in growth and fattening.

I confess that I am not able to write with the host of writers by whom my hogs are assailed, but my hogs have been able to defend themselves, and are not "afraid to flash their beards beside even a Kennilworth."

Cobysville, Ky., Dec. 1841. SAM'L D. MARTIN.

#### ECONOMICAL USE OF FUEL.



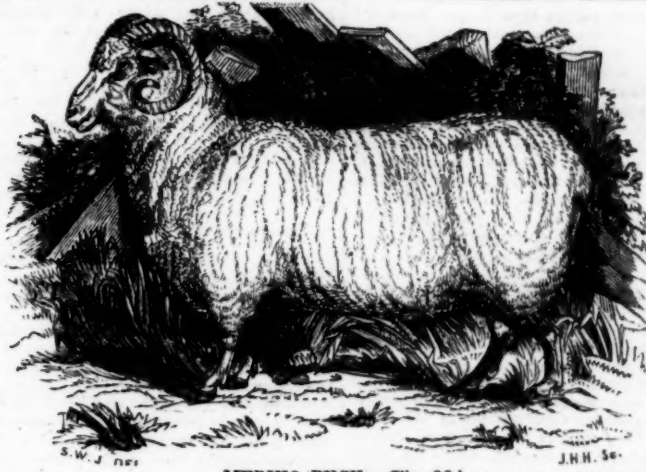
(Fig. 25.)

top is two inches; (this hoop is of course solely for ornament;) the distance E G from the lower plate to the under part of the pipe is 19 inches; the diameter of the pipe is 5 inches; length of pipe 16 inches; the height of the lower plate E from the floor is 5 inches; the damper B is 2 1/2 inches square; and the feeding door A is 6 1/2 inches square; the bottom of B is 2 inches, and the bottom of A is 12 inches above the lower plate; the hoop F D at the top I have represented as perforated with diamonds. The whole is made of Russia iron; and the cost of the stove and pipe complete, ready for setting in operation, is \$6. Its advantages are, 1st, its cheapness; yet it is neat and ornamental in its appearance; there is no patent on it; any mechanic can make them. 2d. The little trouble they occasion, they ought to be supplied with wood in the morning, just before dinner and at tea time; this is amply sufficient. The ashes need not be taken up oftener than twice a week; its surface being smooth, it is easily kept clean. 3d. Its freedom from danger; there is no danger from sparks or from coals falling out on the floor. If the family wish to leave the room they can close both dampers and nothing can take

EDITORS OF CULTIVATOR

—The above drawing will enable those who have never seen one, to form some idea of an AIR-TIGHT STOVE (fig. 25).

Its horizontal section is an ellipse; the transverse diameter is 23 inches, and the conjugate diameter is 18 1/2 inches in length; the distance D E between the upper and lower plate is 28 inches; the depth D F of the perforated hoop on the



MERINO BUCK—(Fig. 26.)

MESSRS. GAYLORD AND TUCKER.—The subject of the inclosed drawing is a merino buck, the property of William Lane of Cornwall, which sheared last June, thirteen months old, six and a half pounds of washed wool. At just eighteen months old he weighed one hundred and twenty-eight pounds. I think you have a good delineation of this tup, which is stout, long and woolly—even down to his fetlock; his form is far better than merinos commonly are. I am the owner of his sire, now three years old, which served one hundred

and thirty-five ewes last season, and sheared last spring just twelve pounds of washed wool. This buck originated from that celebrated Paular stock of William Jarvis of Weathersfield, this state, which he imported when consul to Spain. A good drawing of this perfect sheep I have sent by request to the corresponding secretary of the New-York State Agricultural society, which may soon appear in a work that is to be issued by that Society. S. W. JEWETT.

Weybridge, Vt., Dec. 1841.

fire till their return, when they will have a warm room to come to. 4th. The economy of fuel; this is its crowning glory. I fully believe that it will take one fourth less wood than any stove now in existence. One armful of wood in common winter weather, without wind, will keep a room warm 18 feet square, and with a western aspect.

The theory of the stove is simple. The combustion can be kept up just in proportion to the wants of the room, irrespective of the quantity of wood in the stove, by means of the damper B; both A and B slide upward and downward in grooves; and when closed, their bottoms also shut into grooves; and the stove is perfectly air tight. A being closed, no air can enter it except what is admitted through B. Then by raising or lowering B, we can perfectly regulate the supply of air, and thus limit the combustion to the actual wants of the room, and ensure a perfect equilibrium of temperature through the day. When the wood is reduced to coal, B may be entirely closed, and a powerful heat will be thrown out for some time without waste of fuel. This equilibrium of temperature cannot be maintained by other stoves, nor can they burn the fuel so economically, because they are not air tight, and because they admit air above the body of the fire; hence the combustion cannot be regulated at will.

In order to use the stove after it is set up, throw a good coat of ashes on the bottom to prevent the floor from being heated, put in a quantity of wood, and throw in a shovel full of coals, close A tight, and let B be half open; in 5 minutes you will have a fire without the aid of chips or the bellows. If the fire is too hot, lower the damper or close it entirely; if not warm enough, raise it. When going to bed put in two or three sticks and close the damper; the chill will be kept off the room all night; and in the morning open the damper, and the room will be warm in 5 minutes. Although farmers do not generally buy their fuel, yet the chopping and hauling and cutting up at the door forms no inconsiderable item in his labors, which they would be glad to abridge or dispense with. It is with this view that I send you the foregoing for publication in the Cultivator.

12th month, 17th. This day being a cold snow storm, I selected it to test the capacity of the stove. The wind blew strongly from the N. NE. until 12 M.; then N. until 4 o'clock, when it returned to N. NE. The stove consumed 129 lbs. of half seasoned white oak wood from 1/2 past 7 o'clock A. M. till 11 o'clock P. M. The average temperature of the open air during that time was 16.85°, and the average temperature of the air in the room was 67.28°; these averages are deduced from hourly observations through the whole time. The thermometer in the open air had an eastern exposure. That in the room was horizontally distant from the stove 10 feet 6 inches, and 6 feet 4 inches above the floor. The temperature in the room did not vary 4° during the whole day. The room in which the experiment was made is 18 feet square, 7 1/2 feet high; it has a western aspect, with two windows; 4 doors open into it; and the house being old, there are many fissures and crevices for the wind to get through. The stove was in operation 15 1/2 hours, which shows the hourly consumption to be 8 lbs. 5 oz. of wood; and that this quantity thus consumed kept the air in the room 50.43° above the temperature of the external air.

18th. Strong NW. wind till noon, then it became more calm; temperature of air 14.66°; air of room 67.81°; quantity of wood consumed 114 lbs.; time of burning from 7 A. M. till 11 P. M., or 16 hours; hourly consumption 7 lbs. 2 ozs.

19th. Temperature of air 25.33°; temperature of

room 73.27°; wood consumed 86 1/2 lbs.; time of burning 14 hours; hourly consumption 6 lbs. 1 oz.; wind N. but very light.

These extracts, from the journal of my experiments, will suffice to show the capacity of the stove. It was partly my intention in making the experiments, to ascertain the ratio between the quantity of wood consumed and the temperature of the external air; but I find this cannot be obtained; because at the same temperature the stove will require a great deal more wood in a windy day than in a calm day. Thus, the temperature on the 18th was 2.19° colder than the 19th; yet the hourly consumption was 1 lb. 3 oz. less on account of the cessation of the wind after 12 o'clock M.

N. N. D.

P. S. Perhaps the above statements in the following form will be more generally intelligible. White oak wood, according to Marcus Bull, weighs 3,821 lbs. when perfectly dry; green wood weighs 42 per cent more. The wood I used was about half seasoned; therefore, add 20 per cent to 3,821 and we shall have 4,585. Then one cord of wood would keep a room warm as follows:

35 such days as the 17th,	
40 " " " 18th,	
53 " " " 19th.	N. N. D.

Stockport, 12th mo., 1841.

#### COMMENTS ON THE NOV. AND DEC. NUMBERS OF THE CULTIVATOR FOR 1841.

ONCE more, Commentator presents his compliments to Messrs. Gaylord and Tucker, and wishing them a happy new year, together with a continual increase of that popularity to their excellent paper which it so well deserves, he will resume, with their permission, his comments on such articles of the Cultivator as have particularly attracted his attention. Several circumstances, which it is needless to mention, have interrupted his volunteer criticisms for many weeks past. To make up, therefore, for "lee way," he will include in one communication all he has to say in relation to both the last two numbers of your paper for the by-gone year.

THE first article in your November number gives us an interesting account of the last cattle show and fair of your State Agricultural society; and the specimens of the speechifying uttered on that occasion are very creditable to the speakers. I was particularly pleased with the remarks of your ex-lawyer and senator—the Honorable Micah Sterling, in regard to the folly of parents forcing so many of their sons to become lawyers and doctors—at least in name. If he could possibly cure them of this most pernicious infatuation, or could even mitigate it in some degree, he would well deserve the thanks of his country. This state show and fair, considered in connection with the other numerous exhibitions of a similar character, which took place in your state during the last autumn, is highly gratifying to all the true friends of American husbandry everywhere. But it must be so especially to you New-Yorkers; for it clearly proves that in your state, at least, if nowhere else, the true spirit of agriculture "is abroad," as well as "the schoolmaster."

THE next article upon which I will offer a few remarks is the drawing of "Barnaby and Moore's Premium Side Hill Plow." It will probably be deemed very presumptuous in me to offer a single objection to an implement which has already received two premiums, and each awarded by several farmers together, who, proba-

bly, were all far better judges than I am. But still I will risk it—nay, I have two objections, if the drawing be correct. The first is, that although the new fixture of the coulter saves a second mortice through the beam, it is the best contrivance I ever saw to cause the plow to choke—if that be desirable—as it often is to a lazy plowman, tired of walking. The next objection is, that the front end of the beam, being nearer to the earth than the hinder end, the plow has no pitch nor draught, as some workmen call it; and without a proper elevation of the front end of the beam, the force applied has a constant tendency to lift the point of the share out of the ground; as the line of draught, about the middle thereof, will always be bent downwards.

THE facts which you have given in relation to India are enough to rouse every true friend and lover of his country to a serious consideration of the dangers with which, at least, two of our great staple products are threatened from British competition. It cannot be long before the vast possessions of the English in that country will yield such enormous quantities of cotton and rice as to supply nearly every market of the civilized world where these articles are consumed, and at lower prices than our countrymen can afford to make them. I know not that there is any remedy for this impending evil; but most surely, if there is, it never will be found whilst our law-makers spend nearly their whole time in attempts to make and unmake presidents of the United States, instead of devoting themselves—heart and soul, to the great, the vital interests of the nation.

OLD's corn planter seems to be somewhat too complicated to be well understood from an engraving. But it suggests a remark which I have often had occasion to make in witnessing the trials of many similar implements. I have never yet met with one that would answer well, unless the land was free from stumps, stones and clods of earth, as well as grass and dead weeds, that were but partially covered by shallow plowing. In land deeply plowed and smoothly harrowed, there are several corn planters which will do their work very well and save much labor. Page's is the best that I have seen.

I RETURN my grateful acknowledgments to Mr. Calvin Butler for his friendly recommendation of the white daisy, which, I am sure, from his description, must be what we call camomile daisy, from the close resemblance of the blossom to that of the camomile in every thing except size. But I can assure him, in perfect sincerity, that although grass, properly so called, is at all times rather a scarce article with us, our cattle are animals of such bad taste that they will not touch these plants which Mr. Butler's cattle appear to esteem such delicate eating. This I can affirm to be true of our cattle; for I have watched them in the midst of daisies, and never yet saw one take a bite. I am willing to admit that their obstinate rejection of the white daisies, or rather their abstinence therefrom, proves clearly that they—poor things! know not what is good for them. But it seems to me a hopeless case, unless, indeed, we were to import a Connecticut bull or cow to teach them better. Many of our countrymen, I hear, are importing French cooks to teach them to eat certain things which they never before imagined were fit to eat, and I can see no good reason why we should not do the same good part by our cattle, after first taking care of ourselves.

MR. LEVI DURAND's recommendation to cut up corn without stripping the blades or cutting off the tops, may suit very well with such early varieties and comparatively small crops as are cultivated in Connecticut, and the states farther north. But in Maryland, and more to the South, where the larger and later varieties of corn are always planted for the principal crops, and where corn is the chief staple, the grain will very generally become mouldy in long spells of wet weather, which are common in the fall, before the crop can be housed.

MR. J. N. SMITH's letter on "The South Downs" reminds me of a remark which I have often been prompted to make by numerous other communications relative to different kinds of farming stock; but heretofore I have neglected it. I now submit it with great deference, and beg leave to address it by way of a general query to your stock raising correspondents. It is this: Do not cattle, hogs and sheep occupy rather an undue proportion of the pages of the Cultivator? If they do, I am aware, gentlemen, that it is not your fault; your correspondents themselves must apply the remedy; and I sincerely hope a little consideration of the matter will induce them to do so. It is simply to diversify their future communications occasionally, by giving us a little more of their remarks and experience in regard to the general improvement of soils, the various modes of tillage, the best culture, management, and relative value of the different kinds of crops which are most common in our country, together with particular descriptions and comparative trials, as far as they have been made, of all the most approved agricultural machines and implements. All this I am sure they might do, to the great advantage of your readers; for they write so well on the subject of stock, that they would hardly fail to write well on the several matters to which I have taken the liberty to invite their attention; and without a competent knowledge of which, as well as of breeding or managing farming stock, no man can justly be called a good farmer. Far be from me the wish to banish from your paper all, or even the greater part, of the

numerous communications on the subject of cattle, hogs and sheep; for many of them are very instructive and interesting. But there may possibly be rather too much even of a good thing; and I must confess, that when my eyes are searching over the pages of the Cultivator, as they always do once a month, in the almost certain expectation of finding one or more such treats as they rarely fail to find, if they happen to fall upon an account of somebody's big, fat calf or pig—instead of what I am so busily looking for, my disappointment is greater than I can well describe.

COMMENTATOR.  
(Comments on Dec. No., next month.)

## Domestic Economy.

### WINTER BUTTER.

MESSRS. GAYLORD & TUCKER.—The difficulty of churning and making butter in the winter, is well known to all dairy women. Besides the difficulty of converting the cream into butter, it is very light colored, crumbly, tasteless, and generally considered unfit for the table. This is usually attributed to the manner in which the cows are kept, being fed on dry food, but from a series of experiments I have lately instituted, I am convinced it is more from the management of the milk than from any other cause. I am aware that the milk of cows, at this season of the year, is not as rich, nor so flush in quantity, as when in pasture, on good grass in June; still I am well convinced from the experiments I have lately made, much more cream can be obtained, and of a much superior quality by the "hot water bath" process, than any other method I am acquainted with.

From Mr. Merrifield's success in obtaining the society's second premium, and from some experiments tried in England, I was induced to cause some experiments to be tried in my dairy.

In the statement of Mr. Merrifield, he says—"in winter our milk stands twelve hours; is then removed to the stove and scalded over a slow fire to near boiling heat; the pans removed to the cellar to cool, the cream only churned." The process of extracting cream from milk, adopted in the county of Devonshire, England, by which a superior richness is produced in the cream, had long been known by the name of "clotted" or "clouded cream." They use a four-sided vessel formed of zinc plates 12 inches long, eight inches wide, and six inches deep, with a false bottom one half the depth. The only communication to the lower part is by a lip, through which it may be filled or emptied. A plate of perforated zinc, is placed in the bottom, which is equal in size to that of the false bottom, with ringed handles, by which means the whole of the cream can be lifted off in a sheet without remixing with the milk. The milk, fresh drawn from the cow, is strained into the pan, and remains at rest for twelve hours, when an equal quantity of boiling water is poured into the lower compartment, through the lip; it is then permitted to stand twelve hours more, when the cream will be found perfect, and of such consistency that it may be lifted off with the finger and thumb. In a trial of twelve successive experiments with the above apparatus, the following results were obtained: from four gallons of milk treated as above, produced in twenty-four hours, four and a half pints of cream, which after churning only fifteen minutes, gave forty oz. butter. The same quantity of milk treated in the common mode, in earthen ware pans, and standing forty-eight hours, produced four pints of cream, which after churning ninety minutes gave thirty-six oz. butter. The increase of cream was twelve and a half per cent. and of butter eleven per cent.

From the above suggestions, I caused a pan to be made six inches deep, to receive one of one-half the depth, which was set into the other, resting on the edge of the lower one, and carefully soldered together; near the top of the outer pan, a tube one inch in diameter was inserted, to admit the hot water, and on the opposite side a small hole was made to let the air escape when pouring in the water. With this double pan I tried several experiments, and the results, though varied, were very satisfactory.

In one instance, eleven pounds milk, fresh drawn from the cow, and after standing twelve hours, boiling water was introduced into the lower pan, and stood thirty-six hours more, when it was skimmed and twelve hours after the cream was converted into butter, with a spoon and bowl, in seven minutes, and produced five oz.

In another trial, eleven and a half pounds of milk, subject to the same process, except it stood only twelve hours after the hot water was put in; skimmed and churned immediately, which took only one minute to convert it into butter—produced seven oz.

In the next case eleven pounds of milk was conducted in the same manner as before, except standing twenty-four hours after the hot water was put in; skimmed and churned in eleven minutes, and produced six oz. of butter.

Several other trials were made, with a view of ascertaining the best time to let it stand after the introduction of the hot water, and the result was that in some cases it took four-seven, ten and a half, eleven and fourteen minutes to churn, and the quantity varied from eight to twelve oz., and in no instance did the quantity of milk exceed twelve and a half pounds, which was the most successful as to quantity, giving one oz. of butter for every pound of milk, which rates at one pound of butter from six quarts of milk, which is equal to the celebrated "Haskin's cow," the reputed mother of Col. Jaque's "Cream Pot" breed, as noticed in Mr. Colman's Fourth Report. The milk with which the above experiments

were made, was taken from a two year old heifer, a cross of the Durham and Ayrshire, seventeen days after calving, and a heifer's milk is never considered as rich as when more advanced in years.

Allowing that we get, as we did in the last trial, one oz. of butter for every pound of milk, which will average twenty-three pounds daily, would be over ten pounds of butter per week.

From the foregoing experiments I have arrived at the following conclusions:—that the most profitable method is to let the milk stand twelve hours—then add the boiling water, then stand twelve hours more, then skim, and churn the cream from the evening and morning's milk at the same time.

An improvement may be made in having the pans separate, but fitted tight where they come together, by which means they can be much easier cleaned and dried; as in the above method it would be more difficult to dry them when together.

I am inclined to think too, that the same pans may be made useful in the summer when the weather is very hot, and the quantity and quality of the cream much increased by filling the under pan with cold well or spring water, previous to putting in the milk.

C. N. BEMENT.  
Three Hills, Feb'y, 1842.

### TO MAKE HENS LAY PERPETUALLY.

EDS. CULTIVATOR—I never allow cocks to run with my hens, except when I want to raise chickens. Hens will lay eggs perpetually, if treated in the following manner. Keep no roosters; give the hens fresh meat, chopped fine like sausage-meat, once a day, a very small portion, say half an ounce a day to each hen, during winter, or from the time insects disappear in the fall, till they appear again in the spring. Never allow any eggs to remain in the nest, for what is called nest eggs. When the roosters do not run with the hens, and no nest eggs are left in the nest, the hens will not cease laying after the production of twelve or fifteen eggs, as they always do when roosters and nest eggs are allowed; but continue laying perpetually. My hens always lay all winter, and each from seventy-five to one hundred eggs in succession. There being nothing to excite the animal passions, they never attempt to set. If the above plan were generally followed, eggs would be just as plenty in winter as in summer. The only reason why hens do not lay in winter as freely as in summer, is the want of animal food, which they get in summer in abundance in the form of insects. The reason they stop laying and go to setting, after laying a brood of eggs, is the continual excitement of the animal passions by the males. I have for several winters reduced my theory to practice, and proved its entire correctness. It must be observed that the presence of the male is not necessary for the production of eggs, as they are formed whether the male be present or not. Of course such eggs will not produce chickens. When chickens are wanted, the roosters must of course run with the hens.

### TO MAKE WHITEWASH.

Half a bushel of unslacked lime, slack it with boiling water, covered during the process. Strain it, and add a peck of salt, dissolved in warm water, three pounds of ground rice boiled to a thin paste, put in boiling hot; half a pound of powdered Spanish whiting; and a pound of clear glue dissolved in warm water. Mix, and let it stand several days. Let it be put on with painter's or whitewash brush, as hot as possible.

Another mode—Make Whitewash in the usual way, except that the water used should have two double handfuls of salt dissolved in each pailful of the hot water used. Then stir in a double handful of fine sand, to make it thick like cream. Put on hot. Coloring matter can be added to suit fancy.

### TO PRESERVE BACON FROM FLIES.

MESSRS. EDITORS—My simple mode of preserving Bacon may be of use to some of your readers. I lay it down in charcoal, and find it preserved from the fly and kept perfectly sweet, without any further trouble than putting the coal between the several layers. I do not even pound the coal up fine, but take it from the coal heap just as it comes, coarse and fine together. When I want a cut of bacon, I take it off, and put the remainder back, or throwing some of the fine charcoal on the fresh cut surface, hang up the remainder, and so cut from it until it is all consumed. The flies will not touch it. The coal dust is easily washed off before cooking, and the coal in which it has been packed, is as good for burning as ever.

RUSTICUS JUNIOR.

### PRESERVING EGGS.

THERE is a patent in England for preserving eggs; the composition used is as follows, and by adopting the method, it is said, eggs have been kept two years:

"One bushel of quick lime, thirty-two ounces of salt, eight ounces of cream of tartar. Mix the whole together, with as much water as will reduce the composition to such a consistency that an egg, when put into it, will swim."

TO WASH BLACK WORSTED OR WOOLEN HOSE.—If new, soak all night; then wash in hot suds, with beef's gall, a tablespoonful to half a pail of water. Rinse till no color comes out. Then stretch on stocking frames, or iron them when damp on the wrong side.



## Silk Culture in the United States.

## UNITED STATES AGRICULTURAL SOCIETY.

WASHINGTON, 1st Jan., 1842.

MESSRS. GAYLORD & TUCKER—I have to request, in the name of the Board of Control of the United States Agricultural Society, that you would, at your convenience, should you deem it to be a matter of sufficiently general interest, publish the accompanying correspondence on the subject of silk. Very respectfully,

Your obt<sup>d</sup> serv<sup>t</sup>, J. S. SKINNER.

## LETTER TO DR. WHITE.

BOARD OF CONTROL, U. S. AG. SOC., 22d Dec. 1841.

SIR—I am instructed by the Board of Control of the United States Agricultural Society, to acknowledge the receipt of your letter of this date, in reference to the culture and manufacture of silk in our country. The Board sees the importance into which this branch of industry may grow, if suitably fostered, and appreciates accordingly the motives and the value of your remarks as connected with it—but this Society has been so recently organized, and its means and prospects are as yet so imperfectly developed, that it is not yet perceptible, in what way it can best contribute to obviate the difficulties disclosed in your communication. All that can be said now is, that your further suggestions on that head will command respectful attention, and I am instructed to solicit them as much in detail, as your leisure will permit you to draw them out.

It is in contemplation, if circumstances will permit, to have an exhibition in Washington, in May next, where inventors and manufacturers of agricultural and labor saving machinery, will be invited to exhibit the fruits of their ingenuity, and their contrivances to economize labor and material. Few things would attract more interest, or be regarded as of more value, than any machinery or information which promises to promote the growth and manufacture of another, and a most important article of agriculture and of domestic use and consumption—one which is procured too, as silk is from a nation whose government imposes the most onerous duties on some of the most important products of American husbandry. The Board directs me to express their wish that your invention may be exhibited on the occasion referred to, and will gladly assist in spreading the knowledge of its peculiar advantages.

In the mean time, if you can indicate any particular means within their reach to further our independence of foreign countries, for our supplies of this costly commodity, the favor will be duly esteemed.

(Signed.) J. S. SKINNER,  
Cor. Secy U. S. Ag. Society.

To Dr. THOMAS WHITE.

## DR. WHITE'S ANSWER.

WASHINGTON, Dec. 27, 1841.

To J. S. SKINNER, Esq., Cor. Secy of the U. S. Ag. Socy.

SIR—Your communication of the 22d inst. is received, and contents noted. It gives me much pleasure to learn that the Board of Control feel disposed to entertain the subject of my last communication, and to give it a favorable consideration. The project of growing and manufacturing silk in this country, is one that has claimed the attention of the patriot and the philanthropist from the earliest period of our history to the present day, many of whom have made heavy sacrifices in order to get the business introduced and established on a firm basis. The result of their labors it is presumed is known to you all. It is only left for me to present a statement of the facts as they now exist in relation to the business; and suggest a plan or mode of operation which in my opinion will enable us to overcome all the impediments that have existed, or that do exist, in the way not only of our supplying ourselves with the article of silk, but of our soon becoming exporters of this valuable commodity to a large extent. In presenting my views in detail for your consideration, if I should draw too heavily upon your patience, by being over prolix, you will please accept the only apology I am able to offer, (viz.) the great anxiety I feel for the success of the business, and the general prosperity of our common country has induced me to do so.

It is unnecessary to consume time in order to establish the fact, that we are susceptible of becoming a silk growing nation; that fact is fully established—nevertheless as there are some misgivings and doubts in the public mind as to whether it can be made a profitable business, it may be proper to present you with a few items on that head. Within the last half year I have traveled extensively through the States of Tennessee, Alabama, Kentucky, Indiana, Ohio, Pennsylvania, Maryland, Virginia, New Jersey, and New-York, and do not recollect passing through a county in any one of those states without meeting with one or more successful silk growers, who were fully satisfied with the result of their experiments. I will not trouble you with a detail of all the particulars, but simply cite a few cases as demonstrative of the general result. The following is the statement of Wm. P. Campbell, of Franklin, Williamson county, (Tenn.) published in the Tenn. Agriculturist:

"My worms were healthy throughout, but from their crowded situation, many of them were small, and consequently made imperfect cocoons. I am of the opinion I would have made more silk with half the number of worms; and I am fully persuaded, from the experiment I have made, that silk is destined to be one of our best staples; provided however, that we can find a market for

our cocoons near our doors. I do not believe the people will go at it generally, until flatures are established through the country—reeling will scare them. Give us a market for cocoons, and I believe that in less than five years our people will make them for \$2.00 per bushel, rather than make cotton at six or seven cents per lb."

The Hon. H. P. Murray of the same county, informed me a few days before I left Tenn., that his cocoons did not cost him one dollar per bushel to raise them; that he intended giving up raising cotton and extend his mulberry grounds so as to employ his whole force at raising silk, provided he could find a market for it. In Frederick city, (M'd.) Dr. Jenks and a gentleman associated with him in the business, whose name I have lost, raised the past season 134 bushels, fed from a lot of Italian or common white mulberry trees, at an expense of about \$80. In this case there were two of them interested in the crop, which made it necessary to keep a strict account of the expense, a statement of which they exhibited to me amounting to about 60 cts a bushel. The most expensive crop I met with in my tour, was a lot of 11 bushels, raised by Mr. Mat. Price of Newark, (N. J.) which cost him \$85. It is always attended with more expense in proportion, to raise small lots than it is to raise larger ones. Throughout Pennsylvania, the silk growers have been able to draw as much from the state treasury, in the character of premiums as paid the expense of raising the cocoons. Nevertheless I find them almost every where discouraged, not only in that state, but elsewhere, because they can neither sell their cocoons or reel it so as to make it avail them any thing of consequence when done. The greater portion of them adopt the language of Mr. Campbell, and say we must have a market for our cocoons. We must have flatures established or we must decline the business. This appears to be the great and perhaps only difficulty in the way of our triumphant success. From the best information I have been able to obtain, I am induced to believe, that much the larger portion of the silk raised the past season, is now lying in a perishing state in the hands of the producer, in consequence of the great difficulty that exists in obtaining the aid of skillful reellers, throwsters and trammers.

To remedy this, I propose that your society adopt measures as soon as convenient, to establish a flature for the purpose of instructing the youth of our country in the art of preparing silk for the loom. I cannot entertain a doubt, if congress was addressed from so respectable a source, having the facts connected with the business collected and laid before them, that they would hesitate a moment in extending the fostering hand of government to aid an establishment of the kind. I know of no source better calculated to produce the effect than through the medium of your society. You can add this branch of industry as an appendage to the other great objects you have in view, and then apply to have the whole connected as an appendage to or a part of, the Smithsonian Institution. It cannot be doubted that congress would act on the most liberal principle in aid of such an establishment, if there is nothing in the will to bar against it. The institution can be established upon true national principles, giving each section of the Union an equal participation in its benefits in proportion to their representation in congress. The members from each district, could bring with them, one, two, or three of the youth of their respective neighborhoods annually, and by the time the session would be over they may return fully instructed in the art of preparing silk suitable for the finest fabrics. The price of instruction should be fixed by law, and be in proportion to the amount appropriated, and the number instructed. By instructing two or three individuals from each congressional district annually for five or six years, we will furnish the country with a supply of efficient and skillful hands, that will be able to take the silk from the cocoon and put it in the best condition for any market, either American or European. While we are appropriating so many millions annually in aid of our commerce, that very commerce too that is draining the precious metals out of our country, to pay for an article, that with a little aid from government we could produce ourselves at an expense far below what it now costs us, I am unable to see any reason why a few thousands might not be appropriated to establish our real independence, so far as the article of silk is concerned at least.

In the common mode of preparing silk for the loom, we have to pass it through four distinct processes, (viz.) reeling, winding, throwing (or twisting), and traming (or doubling and twisting.) In the first state it is called raw silk, and is seldom worth more than five dollars a pound when done in the best manner. There is but a small portion of what is reeled in the United States that could be sold for that price; most of it will not bring more than half that sum, consequently is not worth as much as it was in the cocoons. Mrs. Everson and Mrs. H. Lee, of Ithaca, Tompkins county, New-York, produced fifty pounds of this kind of silk the past season, and exhibited it at the fair of the American Institute, for which they obtained the highest premium, (a gold medal,) yet there was not a pound in the whole lot that could be made into organzine, consequently it was only suited for making sewings. In the third state it is called singles, and is worth from six to eight dollars a pound. In this state it would bear exporting if we fall of a home market. In the fourth state it is called organzine, and is commonly worth from eight to ten dollars a pound; sometimes from twelve to fourteen dollars in the European market, the price always being governed according to the manner it has been reeled in the first instance. If the two ladies above referred to had reeled their silk

at from eight to ten of the worms' threads to the strand, and throwed and tramed it, it would have been worth at least four hundred dollars, and would have made one thousand yards of good substantial goods.

In the first case it is not likely we will be able to raise silk for export, but if we succeed in making good organzine, silk will become the greatest staple of the nation at no distant day, owing to its being susceptible of profitable production from the St. Lawrence to the Sabine. The machine you so kindly invite me to exhibit at your next meeting, and tender me your services in making its advantages known, performs the four processes above noted, in but little more time than it commonly takes to reel alone. Thus putting it in the best marketable condition, without ever subjecting it to loss or tanglement until it is finished. Mr. A. Linsey of this city, has one in operation; he has instructed me to invite all who feel an interest in the business to call and see it, which I cheerfully do. The interest I feel for the success of the business has induced me to proffer to waive my claim (secured to me by patent,) in the machine, so far as it may be needed in the flature, provided one is put in operation, and it should be preferred by the Board.

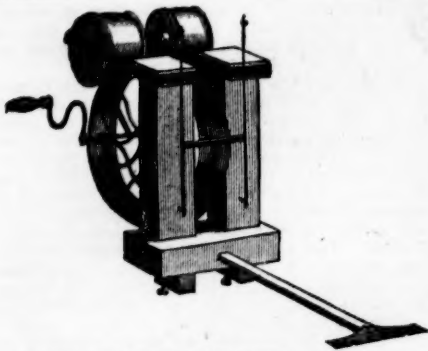
It may be thought premature and visionary for us to think of exporting silk, but, sir, there is nothing to prevent our commencing that trade within five years of this time except the lack of skill in the art of reeling, throwsting and traming. If we can by any means succeed in remedying this defect, it will save the nation more millions in less than twelve years than it will cost thousands to effect it. The vast amount that is annually paid for foreign silk is known to you all; it is unnecessary to invite your attention, or the attention of congress to that part of the subject. But it is presented to our view in another and more serious light, one that I should think ought to claim the most solemn attention of every patriot and statesman in the nation. It is well known that England is making an energetic effort to supply herself with cotton, independent of our planters; that they have succeeded the past season in producing three hundred thousand bales, which is three times as much as they have ever produced before; and that according to the report of their agent, they anticipate furnishing a full supply for their factories in a short time; if I am not misinformed within two years. If they succeed, which it is most probable they will, (if there is any truth in their own reports,) I would ask, what are we to pay for our imports with? By what means are we to pay the interest of our state debts, to say nothing of the principal, if we do not turn our attention to the production of some other new and valuable staple, by a judicious division of our labor, and the diverting a portion of it to the production of silk? This is a subject that every portion of our country is or ought to be deeply interested in. If the southern planter fails of a market for his cotton, where will the north find a market for their handycraft: their hats, shoes, harness, coaches, and the thousands of other things that give employment to tens of thousands of their inhabitants. Or where will the west find a market for their horses, mules, grain and pork? If the value of our present great staple is destroyed, and we are unprovided with a substitute, every portion of our country will feel the shock: every citizen, no matter where located, who deals in cotton, or in any thing that cotton is made the means of payment for, either directly or indirectly, is as much interested in the success of that trade as the planter is himself, provided we have no substitute. If the north be unable to sell they will be unable to buy. The issue is one of serious import that every friend of this country must feel deeply interested in. I am aware there are those who think, or affect to think, that the issue exists between the free labor of the north and the slave labor of the south; but this idea can only be entertained by men of small souls, who are incapable of viewing and understanding the general connection of our multiplied system of trade, change, and exchange. This they will be able to understand better in a few years, if the English succeed in supplying themselves with cotton, and we fail to get the silk business established. They will then see that the true issue exists between foreign labor and American labor, regardless of how or where that labor is performed.

Taking into consideration the adaptation of our country (especially a very large portion of the south and southwest,) to the growth of silk; the existing difficulty in preparing our silk for market when produced; the immense tax imposed upon us by our importing so largely of the article, with the strong probability that at no distant day our cotton, the most valuable staple we now have, will be checkmated in the European market, I cannot admit for a moment, that our statesmen will fold their arms and look on with indifference without making an effort to meet the crisis. Now, supposing there was no difficulty likely to arise in relation to our cotton trade, I humbly conceive that the other branches of the subject are of sufficient importance to merit the serious consideration and liberal action of the representatives of this great nation, provided the facts connected with the business were collected and properly laid before them. This, as I before observed, can best be done through the medium of your society. Nevertheless if my humble services can be of any advantage to the cause, they shall always be at your command. You will please accept my thanks for the honor you have conferred upon me.

Yours truly, THOS. WHITE.

For Mr. Morris' method of destroying the worm in the cocoon, see "Traveling Memoranda, No. 8," page 50, of this number of the Cultivator.





JONES' PATENT SILK REEL.—(Fig. 27.)

**Messrs. GAYLORD & TUCKER**—The great desideratum in getting silk into skeins from the cocoon, is to preserve an even, smooth thread, and so to join the skein as to remove the liability of tangling or losing the end, in case the thread breaks in the operation of unwinding, thus providing against a loss of stock, in a stage of process of making silk in which by far the greatest portion is incurred. To promote the interest of the silk grower in this fundamental branch of the operation, I wish, through the medium of the Cultivator, to exhibit to the public a Silk Reel, entirely novel in its construction and mode of communicating motion, having for this purpose neither gearing, belting or banding, and hence no ways liable to get out of order. Its simplicity and compactness is unparalleled, the whole machine being less than one cubic foot. It can be readily attached to a table, by a thumb set screw. For its neatness and elegance, both in form and workmanship, it is peculiar, forming a piece of ornamental machinery that would grace a lady's parlor. The operation compares well with the appearance, its movements are smooth and regular, diminishing greatly the liability of the thread breaking. It winds the silk from cocoons on to small barrels; it runs two threads at a time, which cross each other between the first and second guides, and is then spread upon the barrels by a lateral motion of the second guides, precisely like the Piedmontese Reel. When dry the silk can be slipped off from the barrels in small circular skeins, which will preserve their shape, to be packed and transported any distance, and can at pleasure be unwound with as much facility as yarn is taken from the ball, and without any liability of breaking or losing the end; it thus virtually performs the two fold operation of reeling and spooling at the same time, as it is doubled and thrown immediately from the barrels or the small circular skeins. Its great advantage in this respect over the reels which form long skeins, will be intuitive to those who have manufactured sewing silk from the long skeins, and have witnessed to their vexation and sorrow, the tangling of skeins, losing of ends, resulting often in the total loss of almost whole skeins, and not unfrequently ruining whole spools by losing the end. Another recommendation of this Reel is the expedition and consequent cheapness with which it reels; a mere child whose services may be had for six cents per day, can easily turn it. This machine, with specimens of sewing silk, made from its reeling, were exhibited at the late fair of the American Institute, both of which received the silver medal. It was also exhibited before the New England Silk Convention, recently held at Northampton, and the following report was made. "The Committee appointed to examine the Silk Reel presented by Mr. A. B. Jones of Manchester, Ct., report, That they have examined the above Reel, and are greatly interested in the neatness, simplicity and compactness of its structure, and the accuracy with which its movements are regulated. The committee judge that this Reel is peculiarly fitted for family operations and for establishments where the silk is manufactured as well as reeled. In behalf of the Committee, J. R. Barber, Chairman. This report was unanimously adopted." It has been universally admired by all who have witnessed and proved its operation the past season, who unite in giving it their decided preference to any other which they have used or seen. Those engaged in growing silk will find it much for their interest to become possessed of this Reel.

A. B. JONES.  
Buckland's Cor's., Hartford Co. Ct., Jan. 15, 1842.

### Veterinary Department.

#### BLACK LEG IN CALVES.

**EDITORS OF THE CULTIVATOR**—I have seen in the Cultivator of the eleventh month of the past year, a communication from Jos. H. Merriek, regarding the sudden death of some Calves, in which he asks for information of the cause of the attack, and for its remedy. When in England, the complaint frequently came under my notice; it is there known by several names, as Black Leg, Black Quarter, Quarter Evil, Joint Murrain, and some others. I have seen it most frequently attack calves, which, from being kept in a paddock where there was scarcely any grass, and where they were supported on milk or whey, had, on their being deprived of their usual support, been removed into a field of fine fresh clover: this circumstance has induced me to believe that the sudden change of food might probably be the cause of the complaint. I have not in the course of my experience known it affect any

cattle that have attained the age of two years. I have known a great many nostrums applied to arrest the progress of the complaint, but uniformly without success, every animal having died in the course of about two days from the visible commencement of the disease. I have therefore hitherto considered it incurable. For further information I refer your readers to White's Veterinary Dictionary, where the complaint is treated of at great length. Your friend,  
JOHN WEATHERALD.  
Puslinch, near Guelph, Canada West, 19th 1 mo., 1842.

**Messrs. GAYLORD & TUCKER**—In one of back Nos. of the Cultivator, Mr. J. H. Merriek inquires respecting a disease, his calves are afflicted with. It is well known here, and is called vulgarly the "Black Leg." I never knew any animal attacked with it to recover, because an animal is rarely found alive after the attack, on account of its killing them so quick. It generally seizes on calves that are well fed, as Mr. M. stated his to be. I have known it to attack older cattle, but this is rare. The preventive is easy and sure; it is nothing more than to salt them at least three times per week.

P. S. The above preventive is we believe infallible.  
Walnut Grove, N. J. D. Y. O.

#### SCAB IN SHEEP.

AMONG Sheep there is no disease so common, or productive of so much injury, certainly not in the United States, as the Scab, or as it is called by some, the Itch. A sheep infected with this disease is restless, rubbing itself violently against posts, fences, or whatever is in its way; biting and tearing out the wool with its teeth, and exhibiting every sign of intense irritation. On examining the sheep the skin will be found red and rough, with usually an extensive cutaneous eruption, or an accumulation of small pimples or pustules, some of which have broken, and the matter discharged has formed patches of crust or scab, from which the common name of the disease is derived. The fleece on a sheep diseased with the scab will be irregular in its growth, and the quality inferior; and if the complaint is severe, or long continued, the health is impaired, and the animal pines away rapidly till relieved by death. The rot may be more immediately fatal, and produce greater losses in Europe, but here the scab is more injurious perhaps than all other diseases put together.

The scab is one of the most infectious of diseases, and if introduced into a flock, unless the diseased animals are immediately removed, the farmer may depend on the whole flock being infected, and both sheep and wool greatly lessened in value. The shoulders and the back are the places usually first and most seriously affected; but unless checked, it will spread till the whole surface is diseased or the animal perishes; or such is the usual course of the disease. The infection seems to spread in two ways: by actual contact with diseased animals, or by means of the places where infected sheep have rubbed themselves or lain. As pay for sheep infected with scab, and sold for sound, cannot be collected in Europe, or may be recovered, much attention has been paid to the time that elapses after the infection, before the disease appears. About the twelfth day it is stated by Youatt, the pustules begin to appear, and the rubbing of the animal shows the irritation has commenced. In four days more the pustules break, and the matter escaping forms the crust or scab.

After it was found that the itch in the human race was caused by an insect, a species of *Acarus*, it was supposed that similar cutaneous diseases in animals might arise from the same source. M. Walz, a German, was the first to establish this point and fully investigate its character, and numerous subsequent examinations have proved the correctness of his opinions. He found that the scab, like the itch, mange, &c., is caused by animalcules; that the irritation caused by his burrowing in the skin, forms the pustule, and that when this breaks, the acarus leaves his habitation and travels to another part of the skin, and thus extends the disease, or it may be left on the rubbing post, or the wool of an animal coming in contact. When one of these acari is placed on the wool of a sound animal, they quickly travel to its roots, where the place of burying themselves is shown by a minute red point. About the sixteenth day the pimple or pustule breaks, and if the acari is a female it appears with a multitude of young. These immediately set to work on the skin, bury themselves and propagate until the poor animal is irritated to death, or becomes encrusted with scab. M. Walz satisfactorily traced the parasite through all its changes, and by experiment discovered its mode of action, and method of infection. He found that when the male acari was placed on a sheep, it burrowed, the pustule was formed, but the itching and scab soon disappeared without the employment of any remedy. Such was not the case where the female acari was placed on the sound skin; as with the breaking of the pustule from eight to fifteen little ones made their appearance. M. Walz found that the young acari kept in a dry place, dried and crumbled to dust; but when old, that it would retain its life through the whole winter; thus proving the necessity of not relying on the season for their destruction, but on preparations of active medicine when the disease shows itself. Of the origin of these insects, we of course can know nothing; it is enough that we are certain when they make their appearance they can be met and destroyed.

Various remedies have been recommended for the cure of the scab, but although the sheep acarus is very different in form, size, and color from the human acarus, the

application that will destroy one will prove fatal to the other. The remedy is the destruction of the acarus. A strong decoction of tobacco, of hellebore, or a solution of arsenic will cure; but the difficulty with washes is, that the burrowed insect sometimes goes untouched, and unless the washing is repeated, some are apt to escape, and the disease is continued. Owing to this it has generally been deemed a safe and more expeditious mode to use the mercurial ointment. When used too strong, it will salivate lambs or ewes. Where the cases are very bad the ointment may consist of one part of mercurial ointment or *unguentum*, with three parts lard; but for ordinary cases of scab, one part of the mercurial ointment to five of lard will be sufficiently powerful. The wool should be separated, a small quantity placed on the skin, and carefully rubbed in. The extent of the application, and the quantity used, will depend on the spread of the disease, from half an ounce to two ounces being demanded. A decoction of tobacco or hellebore will cure, but as before remarked it may be necessary to repeat the washing. Arsenical applications are effectual, but dangerous, unless great care is used. Where an animal has been washed, or ointment applied, infection is generally prevented; but whenever the scab appears, and is supposed to be cured, examinations at the end of every few days should take place, particularly if any symptoms of itching or irritation appear. The sheep grower should pay strict attention to the health of his animals, and such care and attention will be abundantly repaid. Below we give figures of the acari that produces the scab, as delineated by M. Walz.

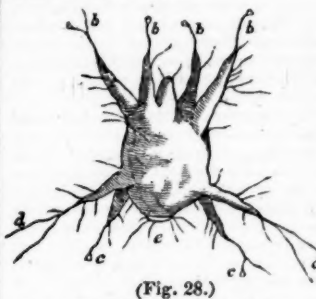


Fig. 28.—The female, of 366 times the natural size, larger than the male, of an oval form, and provided with eight feet, four before and four behind.

a.—The sucker.  
b. b. b. b.—The 4 anterior feet, with their trumpet-like appendices.

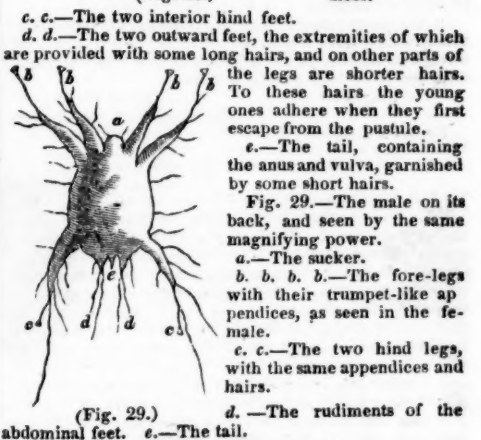


Fig. 29.—The male on its back, and seen by the same magnifying power.

a.—The sucker.  
b. b. b. b.—The fore-legs with their trumpet-like appendices, as seen in the female.  
c. c.—The two hind legs, with the same appendices and hairs.  
d.—The rudiments of the abdominal feet. e.—The tail.

#### "DISTEMPER" AMONG DOGS.

J. C. ROBERTSON, Esq. of Springfield, Elizabeth City Co., Va., accustomed, as he says, "to the healthful sports of the field and the chase," has requested some information as to a distemper which has occasioned him the loss of some of his best dogs, and the best method of cure, if any is known; and also, whether the disease is infectious, &c.

Circumstances have never made us familiar with the habits or diseases of dogs, although we can fully appreciate their fidelity and attachment, and, with our correspondent, believe their diseases worthy of notice and cure. Blaine, in his great work on Rural Sports, which is high authority on all matters relating to dogs and horses, thus speaks of the disease called by our correspondent the distemper:

"Few young dogs escape the distemper; and if they do escape in their youth, three-fourths are attacked by it afterwards, as it is by far the most common and fatal disease of the dog. It generally attacks them before eighteen months old, although it may appear when quite young, or after several years. Greyhounds are very subject to it, and it is more frequently fatal to them than others. Moist eyes, dulness, wasting, cough, and sneezing, are the symptoms of its approach. In some cases it commences by purging, in others by fits, and frequently ends fatally in the latter way." For cure, Blaine gives the following directions, in substance:

On the first attack of the disease, give emetics; they are very useful. A large spoonful of common salt, in three spoonfuls of warm water is good, the quantity to be increased according to the size of the dog, or the difficulty of making him vomit. If the dog remains strong, such an emetic every third day is not too much. Active purging must be avoided, but the bowels must be kept open. If scouring is present, the best remedy is



balls made of equal parts of gum arabic, prepared chalk, and conserve of roses, with rice milk as food. Two or three grains of James' powder may be given at night, where the bowels are not affected, and where the discharge from the nose betokens putridity, balls made of Friar's balsam, gum guaiacum, and camomile flowers, in powder, will be useful. Dogs in every stage of the disease should be well fed. Setons we have not found as useful as some have supposed. If the nose is much stopped, rubbing tar on the upper part is beneficial. If there is great insensibility and stupidity, or the head seems much affected, a blister on the top of the head is useful.

The disease is *very contagious*, though it sometimes appears where no cause of contagion exists. The diseased dogs should be at once separated from the rest of the pack, to avoid the danger, as far as possible, of spreading the disease.

#### DISEASE OF COWS AT TROY.

MESSRS. GAYLORD & TUCKER—In the Cultivator for Sept. last, I perceive an article by Mr. Bement, respecting a very fatal disease among Cows at Troy, N. Y.

Permit me to state my opinion upon the subject. From the symptoms there stated, I have no doubt that the seat of the disease was in the lungs, and the cause probably from inhaling a specific poison, or miasma, in those low grounds situated on the banks of a large river, which, from the extensive drouth had been unusually low. The immediate cause of death must have been congestion of blood in the lungs, or mortification of that important organ. If the disease had arisen from any thing taken into the stomach, the symptoms would have been very different. Allow me at the same time to return my thanks to Mr. Bement for his kindness in thus recommending me to the notice of the public.

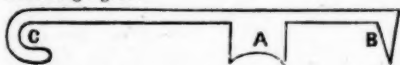
GEO. WRIGHT, V. S.

No. 80 Hamilton-street, Albany.

#### The Garden and the Orchard

##### A GRAFTING KNIFE AND CHISEL.

MESSRS. EDITORS—I send you a description and drawing of an instrument, made and used by my brother last spring when grafting. It is a small thing, but nevertheless very convenient. I don't know where it originated. It would be best made of steel; but any hard iron will answer the purpose. Its form is represented by the following figure.



The part marked A should be made 2 inches or more in length, with a sharp edge. It is used for splitting the stock after it is sawed off and pared. The edge should be made with a slight curve, as in the cut, that the bark, when splitting, may be cut first. The wedge on the end marked B, is used for opening the stock to prepare it to receive the cions. The end marked C, is made in the form of a hook, that it may be hung on the twigs of the tree while sawing and paring the stock.

Berlin, Ct., Dec. 17, 1841.

R. NORTH, Jr.

##### CUTTING CIONS—GRAFTING, &c.

MESSRS. GAYLORD AND TUCKER—I have paid considerable attention to propagating fruit trees, and would remark that apple cions cut as soon as the leaf falls in autumn will keep if buried in the bottom of any ordinary cellar, provided it is not wet, just as well as though they were cut in March. I have cut cions on the 12th of October, carried them 70 miles, buried them in my cellar, set them in July following, and they did as well as those cut at any other time. Pear cions will not do as well, as they are liable to turn black and die. Peach trees, budded during the last half of August, do better with me, lat. 41° 30m., than at any other time. The tree has then nearly done growing for the season and can be budded high up, and yet there is sufficient action in the sap to make the bud adhere.

New-York, Jan. 5, 1842.

ENQUIRER.

#### THE GARDEN.

THERE is one great principle which with the farmer should have due weight allowed it, and that is, looking for happiness at home. To ensure this, all the appliances and additions necessary to secure such a result should be attended to; and perhaps there is no one thing, *out of the house*, more conducive to this, than a well arranged and well cultivated garden. Into the minute details of gardening we cannot be expected to enter; for these, we must refer such as wish to become acquainted with the minutiae of gardening, the cultivation of flowers and plants in all their varieties, to those works on the subject, such as "Bridgman's Gardener's Assistant," where these matters are treated amply, and in detail. The farmer, however, should remember that every tree, shrub and flower he cultivates, constitutes a new link of attachment to bind him to his home, and render that home more delightful. They multiply our means of enjoyment, they make additions to our stock of knowledge, they invite us to a more intimate communion with nature, and they prevent the concentration of the mind on wealth, and the narrow selfishness that is too often its

attendant. The garden is a place where many experiments may be advantageously made. It is a farm in miniature, where the different varieties of plants, their adaptation to our climate and our soils, and the merits of particular modes of culture may be tested. Most farmers are not able, nor is it desirable they should attempt experiments on a large scale; they have neither the time, or capital, to expend where the result may be doubtful to any extent; but in the garden the case is different, and failures can never produce serious losses.

For the farmer's garden there may be a few general rules laid down, which will apply to their construction, management, and general cultivation. The soil is one of the most important considerations, and the first that demands attention. If naturally good, a very great point is gained in the outset; since if this first requisite is not present, nothing can be done to advantage. The garden should be of a deep rich loam, not too dry or porous, as plants would be liable to suffer from drouth; but a still worse fault is excess of moisture, since this renders land cold and heavy, difficult of cultivation, and wholly unfit for many of the most valuable garden plants. If too wet, it must first be drained effectually, then heavily manured, and by the spade, or trench plowing, made loose and friable to the depth of eighteen inches or two feet. If inclining to clay, or containing so much as to beat down and set hard on the surface after heavy rains, the application of sand will be of essential service, or still better if sandy marl can be used. The soil should be such as to work easy, retain sufficient moisture for plants, allow all that is superabundant to flow off easily, and be kept constantly rich. The garden should also have a good fence about it, to secure it against the encroachments of animals. Many a farmer has had the mortification of seeing a flourishing garden destroyed in a single night by a neglect of his fences and gates.

Many farmers fail in having good gardens, even where the soil is good, from not performing the culture as it should be; not selecting good seeds; not planting them at suitable times; or not giving them their proper position, as to sun, shade, &c. Avoid as much as possible having trees about those parts of your garden where you grow roots, vines, or any plants that require the full warmth and light of the sun. There are few trees of which the drippings are not positively injurious; and besides, their roots exhaust the soil around them. Trees may be advantageously planted on the north, west, or east side of gardens, as they break the cold winds from those quarters, and the ill effects of their shade is little felt. Thick hedges, or copses of evergreens, on the most exposed sides of gardens are useful, and their appearance adds much to the general effect of the buildings, and agricultural improvements.

To ensure the germination of seeds when placed in the earth, the earth should be brought in close contact with them. This is necessary to secure the requisite moisture, to exclude light, and to furnish a hold for the young roots. Seeds should never be placed too deep in the soil, nor is deep planting necessary to secure a covering, if the earth is properly rolled or pressed around the seed. Corn does not demand more than a covering of 2½ or 3 inches in thickness, if the earth is properly pressed over the seed; yet in the ordinary way of planting, it oftener gets a covering of 5 inches than 3. Small seeds are often lost from this cause. They are planted so deep that the young plant cannot force its way to the upper air; it is literally buried alive. A light covering, well rolled or pressed down, is far better for all seeds than a deep one, not brought in contact with the seeds. There are some seeds that will germinate much better if soaked in warm water previous to planting. The shell, or envelope, becomes so very hard by drying as to prevent the germination, unless nature receives aid in the way suggested. The onion, the beet, and many of the smaller flower seeds, will succeed better if treated in this way than if planted without preparation.

All plants cultivated in our gardens, that are natives of tropical climes, feel every variation of the weather and depression of temperature more sensibly than others, and consequently require additional precautions in planting and in cultivation. A cold rain will frequently prove fatal to the Lima bean, while the common garden bean is unhurt. So, too, the cucumber, tomato, melon, pepper, egg plants, &c., will feel a frost which the pea or cabbage would wholly escape. There are many plants which are called hardy; such as the parsnep, onion, asparagus, parsley, pea, &c., which may be planted early without fear of rotting, or in general without failure of germination; and many plants which at first require considerable moisture are much better planted early than late. The carrot, celery, onion, spinach, &c. are of this class; and if the sowing of them is delayed until hot, dry weather comes on, good plants can hardly be expected. The lettuce, too, may be sown whenever the ground is free from frost and sufficiently dry, since should it germinate only, it rarely suffers from frost, although its growth may be retarded. For this reason, many farmers as well as gardeners are in the habit of preparing and sowing some beds of lettuce in the fall, that this plant may be in season for early salads. It should be remembered, however, that the rapidity of germination is mainly depending on the temperature. Thus, at the same temperature, the bean will sprout as quick as the pea; but if the temperature is low, the bean would rot, while the pea would retain its germinating power, and be ready to take advantage of the first favorable increase of temperature to vegetate.

Where it is desirable to procure early vegetables, it has become quite common to use hot beds or forcing

frames; and the process of constructing and managing these has been so simplified and rendered so easy, that every farmer or owner of a garden may avail himself of their use. Occasional failures will indeed occur, but with reasonable care, not oftener than in open culture; and a supply of early vegetables is so conducive to health, not to speak of them as a luxury, that we think few will regret the trifling expenditure such hot beds will occasion. In our northern climate, the use of such beds enables us to procure a supply of early or summer cabbages, early radishes, early lettuce, tomatoes, peppers, egg plants, &c., for transplanting, as well as for the table. At page 38 of the Cultivator for 1840, is a description and drawing of a hot bed made in a permanent frame or box, and which an experience of several years enables us to pronounce an excellent fixture. By reference to that article, it will be seen that the construction and management is quite easy; and we have the pleasure of knowing that many of our friends who have constructed beds on that principle have been well satisfied with the results. Hot beds made in that way, or in a close box, do not suffer as much from drouth, or require as much watering as when made open, or in such a manner that evaporation can take place from all their sides, as is the usual practice. But such box hot beds are unfit for purposes in which a continued heat is required for a considerable time, as no additions of fermenting manures can be made to them, as may be to those without such covering to the sides. We have found, however, that the heat generated in the first mass of manure is fully sufficient for ordinary vegetables, and they may require some regulation to prevent its becoming excessive, particularly when aided by the heat of the sun in the middle of the day. In very dry porous grounds, it will be better to have the bed sunk some two feet in the earth, as it will suffer much less from drouth, and require less attention than if wholly on the surface of the garden; but if the soil is retentive and wet, such a pit would retain water, and of course prevent all fermentation. The following directions, which we copy from the "Young Gardener's Assistant," are very correct, and explain the method of making the common hot bed very intelligibly:

"It may be necessary to remind my readers of the necessity of being always prepared to sow cabbage, lettuce, tomato, and egg plant seeds, [we would add peppers and radishes] in hot beds the last week in February or early in March; for this purpose, let some fresh stable dung and some rich compost be engaged beforehand. Some gardeners make their beds on the level ground, but it is always safest to make them in pits from eighteen inches to two feet deep; in order to do this, the pits should be dug in autumn, or a heap of dung may be deposited on the ground intended for the beds before the frost sets in, and good earth may be obtained from the pits without difficulty.

"The frames should be made of good sound planks; the back plank may be two feet wide, and the end ones may be so sloped as to make a fifteen inch plank do for the front. A frame calculated for four sashes of three feet in width by six in length, as above described, should be nearly thirteen feet long, and about six broad at the top.

"The frame being set over the pit and properly fastened, the fresh dung should be spread regularly in the pit to the depth of twenty or twenty-four inches; if the dung be in a good heating condition, cover it with six or eight inches deep of mold, then lay on the sashes, and protect the beds from the inclemency of the weather. In two or three days the rank steam may pass off; it will then be necessary to stir the mold before the seed be sown, to prevent the growth of young weeds that may be germinating; then sow the seeds, either in shallow drills, or broadcast, as equally as possible, reserving a small quantity of the warm mold to be sown or sifted over the seeds. This description of a hot bed is intended expressly for the raising of spring cabbage, lettuce, tomatoes, and such other plants as may be required for early planting. Beds made earlier in the season, or for forcing, will require a greater abundance of manure."

In the ordinary method of cultivating the farmer's garden, or the common vegetable garden, there is, in our northern states, little more than preparation for coming months that can be advantageously performed in March. The manure may be drawn upon the garden and piled in heaps for spreading preparatory to plowing. It is always better that fine rotted manure or compost be used for the garden, as the straw mixed with fresh stable manures renders the working of the earth into beds difficult, and prevents the fineness of mold so necessary for the germination of the smaller seeds. Where the condition of the soil will admit, a few beds of carrots, lettuces, peas, and similar hardy plants may be put in for early use, although it would not be best to plant all intended for the year at this time. Asparagus beds should now be cleared off, the litter put upon them at the beginning of winter removed, compost spread over the beds to the depth of three or four inches, and well worked in with a strong fork, avoiding disturbing the crowns of the roots as much as possible. This is one of the most delicious of vegetables, and is deserving of far more general cultivation. There is an impression that there is something mysterious and difficult in the growth of asparagus; but this is all idle, as there are few plants cultivated with more ease and certainty. It is idle, it is true, to think of growing fine asparagus where the soil is wet or compact to within a few inches of the surface; or where there is no richness to give vigor to the plant. Asparagus requires a soil permeable



to the depth of at least two feet, as the roots, like those of most other perennial plants, run deep; and on the richness and good condition of the soil, the size and quality of the shoots will mainly depend. It may be cultivated either by roots transplanted or by seed; and in either case, when properly performed in the early spring, success may be considered as certain. A few potatoes may be planted in March, and early varieties should be selected. If the seed end, or that end containing the greatest number of eyes, is selected for planting, the product will come to maturity some ten or twelve days earlier than when other parts of the root are used. The Lancashire gardeners, who mainly supply the London market with potatoes, are very careful to observe this rule.

### The New-York Market.

#### MONTHLY REPORT FOR FEBRUARY, 1842.

(Prepared for THE CULTIVATOR.)

**COTTON**—There has been little activity or change in the market during the month, and at the last dates the daily expectation of advices from Liverpool, rendered it very quiet—both buyer and seller being disposed to wait for their reception. The sales from the 22d of January to the 23d of February, amounted to 19,880 bales. The total imports from the 1st to 22d of the month was 16,003; and the exports from the 1st to the 16th, was 8,759 bales. The receipts up to the 16th were about 190,000 bales more than during the same period year before last, which was the greatest Cotton year before known. The quotations are as follows:

	February 1st.	February 23d.
New Orleans, ....	7 1-2 @ 11	6 3-4 @ 11
Mobile, .....	7 1-4 @ 10 1-2	6 3-4 @ 10 1-2
Upland and Florida, ..	7 @ 9 1-4	6 @ 9 1-2

**FLOUR AND MEAL**—Most of the articles coming under this head have been characterized by an excessive dullness. In the first part of the month, there was a tendency to advance, but of late there has been a disposition on the part of holders to submit to a decline of 12 1-2 cts  $\frac{1}{2}$  barrel, and prices now are about the same as at the close of January. The supply is moderately large. The quotations on the 23d were as follows:—Michigan  $\$6$ ; Ohio  $\$6$  6 12 1-2; Baltimore Howard-street,  $\$6$  6 12 1-2; Richmond City Mills  $\$7$  50. Rye Flour  $\$4$  12 1-2 @ 4 20; Jersey Corn Meal  $\$3$  @ 3 20; Bran-dywine in bbls. about the same, in hds.  $\$14$  50 @ 15. This is an advance of about 12 1-2 cts. on the prices of last month. Rye Flour is plenty, and in moderate request. Corn Meal scarce and wanted.

**GRAIN**—At the first and middle of the month, there was considerable activity in every description, but more particularly in wheat. Of late, however, a greater degree of dullness has prevailed, and prices are nearly the same as at first of the month. Wheat is scarce and in demand, at  $\$1$  24 @ 1 25  $\frac{1}{2}$  bus. for Ohio and Genesee, and  $\$1$  20 for Southern. Rye, little in market. Northern is quoted at 72 @ 73  $\frac{1}{2}$  bus. Barley, 74 1-2 cts. and nothing doing. Oats, Northern 50 @ 53; Southern, 45 @ 47 cts  $\frac{1}{2}$  bus.; the demand being confined to the retail trade, and receipts light. Corn comes forward very slowly. The demand for distilling is light, and exports are subdued. On the 23d of the month, 4000 bus. N. river Rye were shipped to England on exportment. Northern and Jersey Corn is worth 61 @ 62 cts; Southern 58 @ 59.

**PROVISIONS**—The transactions in all descriptions are extremely limited, and the market is dull and heavy. There is a large stock on hand, especially of Pork, of which there has been large receipts from New-Orleans. Since the first of the month prices have gradually declined, and on the 23d the quotations were as follows:—Beef, 7 50 @ 8 25 for mess, and prime at  $\$4$  25 @ 4 75. Pork,  $\$7$  12 1-2 @ 9; and prime  $\$5$  25 @ 7 25. Lard is in fair demand at 4 @ 6 1-2  $\frac{1}{2}$  lb. In Butter there is but little doing and prices are 15 cts. for prime; ordinary to good 12 @ 14 cts. The stock of Cheese is light, and prices are 7 @ 8 1-2 cts.  $\frac{1}{2}$  lb. Smoked Hams, plenty at 8 1-2 @ 8 3-4 cts.  $\frac{1}{2}$  lb. Smoked Beef 7 1-2 @ 8 cts.

**TOBACCO**—During the month there has been little inquiry for any description, and parcels forced on the market sold at very low prices. The new crop is full of sale, and being generally cured unusually early is of inferior quality, quite below the average. Prices are but nominal, at the same rates as at the close of the month, with two or three exceptions, viz: Richmond and Petersburg, 3 @ 5 1-2. North Carolina, 3 @ 5; Kentucky, 3 1- @ 9 1-2; St. Domingo, 11 1-2 @ 20 c. In other descriptions prices remain without change, viz:—Cuba, 12 1-2 @ 20 c.; Manufactured, No. 1, 12 @ 15 c.; No. 2, 10 @ 11 c.; No. 3, 7 @ 16 c.; 32 lumps, 16 @ 20 c.; Ladies Twist, 16 @ 20 c.; Cavendish, 10 @ 40 c.

#### DOWNING'S BOTANIC GARDENS AND NURSERY, NEWBURGH, N. Y.

THIS establishment contains at present one of the largest collections of Trees and Shrubs to be found in the United States; and, from its peculiar position near the Highlands of the Hudson, its productions are found to possess a great advantage in point of hardiness, when transplanted, over those raised further south.

It is constantly the aim of the proprietors to conduct the business of the establishment in the most scientific and careful manner; and all persons ordering trees or plants, are assured that no pains are spared to insure the genuineness of every article sent out.

Special attention is paid to Fruit Trees, and a collection is offered comprising all the finest varieties that are worthy of cultivation. Also, a great variety of Ornamental Trees, flowering shrubs, herbaceous plants, and a large stock of the most beautiful hardy roses, dahlias, &c. &c.

For hedges a large quantity of the Newcastle (N. J.) thorn, an American species, better adapted than any other to this climate, is offered.

Priced Catalogues will be furnished gratis on application by mail, and all orders, post paid, will receive prompt attention. Trees and plants will be carefully packed for transportation to any portion of the Union.

A. J. DOWNING & CO.  
Newburgh, N. Y. Feb. 1842.

#### WOBURN PIGS.

THE subscriber informs those wanting pigs of this valuable breed, that he will be prepared to execute orders during the months of April and May next, from choice stock and pure blood.

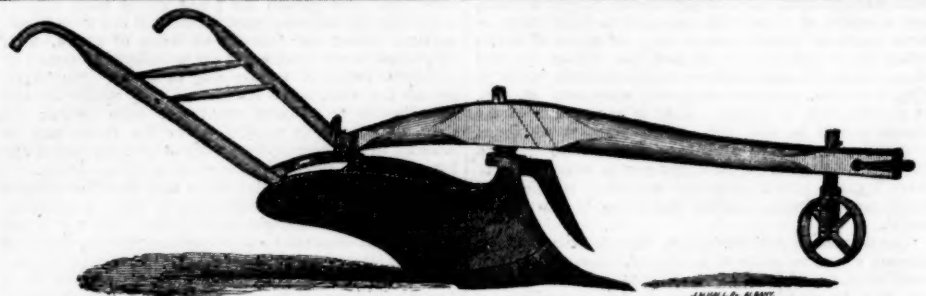
As the demand last fall far exceeded the supply, the advertiser would suggest to those wanting Woburns to order early and secure the supply.

The price is uniformly fifty dollars per pair delivered caged in New-York; the money to be paid on delivery when not accompanying the order.

The subscriber can also furnish Berkshire pigs from some of the choicest stock selected in New-York state. Price, delivered as above mentioned, twenty dollars per pair. Orders by mail to be directed to Mendham, Morris county, New-Jersey.

February 21, 1842.

CHARLES STARR, Jr.



BARNABY & MOORE'S PATENT SIDE-HILL AND LEVEL LAND PLOW,

TO which was awarded the first premium, a silver Cup, by the American Institute at their plowing match for 1840, having on that occasion to compete with the best plows from nine different states.

Also, the first premium, a Gold Medal, by the same Institute, at their annual plowing match for 1841; having some of the best common or horizontal plows in the country as competitors for the prize medal.

It was also awarded the Honorary premium, and equal to the first of  $\$30$ , by the New-York State Agricultural Society, at their annual Fair and test of plows at Syracuse for 1841.

The State Committee on plows, say in their report, "they have a most arduous duty to perform. Near twenty of them (plows), were presented for our inspection, and the Committee are free to say, that they never have seen so great a number of remarkably excellent plows together before."

The undersigned having been for the fourteen years past connected with a furnace and machine shop, and being a practical mechanic, has devoted much of his time during that period to the improvement of the Plow, believing it was, and still is, one of the most important implements used in agriculture.

In the spring of 1839, in connection with Mr. Ambrose Barnaby, we conceived the plan of making a plow which would serve for "general purposes," and relieve the farmer from the inconvenience and expense of having one plow for level land, and another for side-hill.

Subsequently, I purchased of Mr. Barnaby one-fourth of the patent, which made me proprietor of three-fourths of the whole; since that time, which is about eighteen months, until recently, I have intentionally confined it to narrow limits, knowing although the main or new principle, had been obtained, it still would require time, actual use, and costly experiments in plowing in various kinds of soil, and under different circumstances, to attain and combine the three most important points requisite to make a good plow, viz: 1st. Lightness of draft. 2d. Elegance of work done. 3d. Strength and durability. In this I have been assisted by a dynamometer, to ascertain the exact power required to draw the plow; and having appropriated considerable time for the express purpose of experimenting and testing plows, with some of the best plowmen and scientific farmers in this section of country, and several suggestions made by them have been useful to me. The above testimonials (and many others might be added,) and the honorable source from whence obtained, show how far I have succeeded in the object sought.

The cut above is a very good representation of the plow in its present form, showing the whole of one side and a portion of the mold-board on the opposite side. Both sides of the plow are precisely alike. The standard by which the plow is drawn, is a continuation up of one of the mold-boards, and is round, allowing the beam to revolve between the handles, and on the opposite side of the same, is projecting from the standard, and cast fast to it a flange, or short land side, to which the other mold-board is firmly bolted, and the points of the mold-board coming together, the share which is in the shape of a V covers them, and by one bolt and nut on each side is made fast to the same. This arrangement gives the plow great strength forward, and where it is most required. The mold-board which is cast with the standard, forms the cutting edge, and when a coulter is not used, and as can be seen from the engraving of the plow, that part which is most liable to wear out, is a piece inserted and held on by the share, which when worn can be replaced by a new one at a very trifling expense.

The curvature of the mold-board is so formed that a straight edge or stick applied, placing one end at the point of the share, the other extending back, will lay flat to the mold-board at any place from the bottom, half way up to the top, or usual depth of plowing. This part of the mold-board makes the land side when used as such. When the hind end of the beam is near one of the handles, it brings it then parallel or in line with the share and mold-board on that side, and that side is then land-side, and the opposite side or mold-board at the same time turns over the furrow.

In coming round to plow back, the plowman touches with the foot the hold-fast, passing through the socket at the end of the beam, pressing on it in the same manner as done on a thumb latch to open a door, which disengages the hold-fast from a catch on the back side of the cross-piece between the handles, the beam moving round at the same time carries the end of the beam to the opposite handle, where the hold-fast by a spring behind it is forced into a catch as on the other end of the cross-piece, confining the beam there until removed, as above described. The catches referred to, are placed into a groove on the backside of the cross-piece and can be moved, the object of which is to make either a wide or narrow furrow. To make the furrows wider or take more land, the catches must be moved towards and nearer the handles; for a narrow furrow the opposite direction, or nearer together. In this manner the furrows can be made to vary from eight to eighteen inches in width.

The advantages of this kind of plow over any other now in use, are several and important. Among them are, 1st. The field can be plowed without going round lands, beginning on one side, turning the furrows all one way, avoiding dead furrows and leaving the ground level and in good condition, especially for seeding down.

2d. The arrangement already mentioned, admitting of a much wider or narrower furrow, as the condition of the ground may require.

3d. By placing one of the catches in a hole made for that purpose in the center of the cross-piece, to confine the beam there, it is then a "double mold-board plow," throwing the furrows both ways at the same time, adapting it to the use of plowing between rows or drills, making ditches, digging potatoes by plowing deep and splitting the rows, and making ridges to plant upon by throwing two furrows together.

4th. If the farmer has side-hill to plow, with one of these he is prepared for it at once, and I hazard nothing in saying that as yet it has not even a competitor.

5th. The peculiar construction of the mold-boards which this principle admits of, renders it possible to make a plow of lighter draft, than on any other plan heretofore discovered. Late experiments made with the dynamometer and the results published, fully sustain me in my opinion.

I am at the date hereof, the sole proprietor of the patent right of the above named plow, for the following states:—New-Hampshire, Vermont, Massachusetts, Rhode Island, Pennsylvania, Virginia, Kentucky, Maryland, Delaware, Illinois, Indiana, Michigan, Tennessee, Alabama, Louisiana, Mississippi, Missouri, Arkansas and South Carolina. Of the territories of Wisconsin and Iowa; also of the following counties in the state of New-York:—Broome, Madison, Oneida, Herkimer, Montgomery, Fulton, Saratoga, Clinton, Washington, Essex, Franklin, Warren, Rensselaer, Albany, Schenectady, Schoharie, Greene, Sullivan, Orange, Rockland, Dutchess, Columbia, Westchester, Delaware, Ulster, New-York, Richmond, Kings, Queens and Suffolk. Also the undivided half and joint owner with Justus Slater, of the counties of St. Lawrence, Jefferson, Hamilton, Lewis, Oswego, Cayuga, Cortland, Tioga, Chemung, Steuben, Allegany, Livingston, Cattaraugus, Chautauque, Erie, Niagara, Orleans, Wayne, Monroe, Genesee, Wyoming and Seneca. All of which I offer to sell the right of patent, either by states or counties, and in all cases if wanted, furnish the patterns for the different sizes, and a sample plow.

Orders from farmers and others for plows, directed to me at Ithaca, Tompkins county, N. Y. will be promptly attended to, and plows forwarded subject to charges of transportation, to any of the above named territories, while they shall belong to me.

The sizes I now make, are, No. 3, weight 70 lbs.—price  $\$19$ ; No. 4, weight 80 lbs.  $\$10$ -50. No. 5, 90 lbs.  $\$11$  Coulter if wanted, laid with steel,  $\$2$ . Wheel  $\$1$ . Extra shares, 60 cents and extra shin pieces 12 1-2 cents each.

February 4, 1842.

HENRY MOORE.

#### DURHAM BULLS.

FOR SALE—Four Durham Bulls, viz: two, two years old the coming spring, and two, one year old the coming spring. Auburn, Feb. 16, 1842. J. M. SHERWOOD.

#### GREAT SALE OF BLOODED STOCK.

HAVING disposed of my farm, I shall sell by public auction on Tuesday, 29th of March, at my residence in Greece, adjoining the Erie canal, six miles west of Rochester: 90 Head of cattle, 14 Horses, 300 Sheep, 30 Hogs, which will embrace all my choice Durham, Short Horns; a fine selection of grade animals, to prime Milch Cows, some very superior Horses, both as to blood and action, several thorough-bred improved Leicester Bucks, with a fine flock of Ewes in Lamb. Also several excellent Leicester and Berkshire Hogs; 3 superior Stud Horses sired by imported Turk.

A liberal term of credit will be given to purchasers. Rochester, Feb. 21, 1842. THOMAS WEDDLE.

#### FRUIT & ORNAMENTAL TREES & SHRUBS, GREEN HOUSE PLANTS, &c. &c.

THE subscribers are prepared to execute all orders for Fruit and Ornamental Trees, Shrubs, Green House Plants, Bulbous Flower Roots, Double Dahlias, and all other articles in the nursery line, on the most moderate terms.

Persons who are about establishing new nurseries, or who wish to act as agents for the sale of any of the above articles, will be very liberally dealt with; and all such are requested to communicate their intentions to us immediately.

Where several persons in the same neighborhood are desirous of procuring trees, they will do well to have their several orders forwarded by one person, to whom a commission of 10 per cent will be allowed where the whole order amounts to  $\$50$  or upwards; this method will save considerable trouble and expense.

All who wish trees for planting, the ensuing spring, should transmit their orders as early as possible, so that they may be forwarded in due season; spring planting should be performed as soon as the state of the earth and weather will admit.

It is requested that all orders be accompanied with a remittance or satisfactory reference in Rochester or vicinity.

Priced Catalogues will be sent gratis to all applicants. Address (post paid,) all letters, orders, &c. to

ELLWANGER & BARRY.

Mt. Hope Botanic Garden and Nursery, Rochester, N. Y.

#### ISABELLA GRAPE VINES,

OF proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over 10 years has conferred on the variety at Croton Point, are now offered to the public. Those who may purchase will receive such instructions as will enable them to cultivate the Grape with entire success, [provided their locality is not too far north.] All communications, post paid, addressed to R. T. UNDERHILL, M. D. 400 Broadway, N. Y. will receive attention. He feels quite confident that he has so far ameliorated the character and habits of the grape vines in his vineyards and nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the Northern, all the Western, Middle and Southern states.

#### IMPROVED YORKSHIRE PIGS.

J. & E. A. HARLAND, wish to inform the breeders of hogs that they will have a number of their Improved Yorkshire Hogs ready for shipment at the opening of the navigation. The Improved Yorkshires have obtained the best premiums at all the public shows where they have been exhibited, and J. & E. A. H. believe themselves fully warranted in pronouncing them equal, if not superior to any other breed of hogs on this continent. The price per pair, at the age of two months, is  $\$25$ , free on board steamer at the head of Lake Ontario. Guelph, Canada, 1 mo. 19, 1842.

#### MULBERRIES FOR SILK, &c.

WILLIAM R. PRINCE offers for sale, at the Linnæan Botanic Garden, 100,000 Mulberries of the finest kinds for the silk culture, which will be sold at low rates, and at a credit that will enable the purchaser to pay therefor from the silk produced. They consist of the New Circassian, Multicaulis, Alpine, Moretti, Elata, Broussa, and Expansa varieties. Also, the usual immense assortment of Fruit and Ornamental Trees and Shrubs, Green House Plants, Bulbous Roots, and splendid Dahlias. The new priced Catalogues will be sent gratis to every one who applies post paid. On all orders enclosing cash or a good draft, a discount of ten per cent will be made. Flushing, near New-York, Feb. 10, 1842.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN.